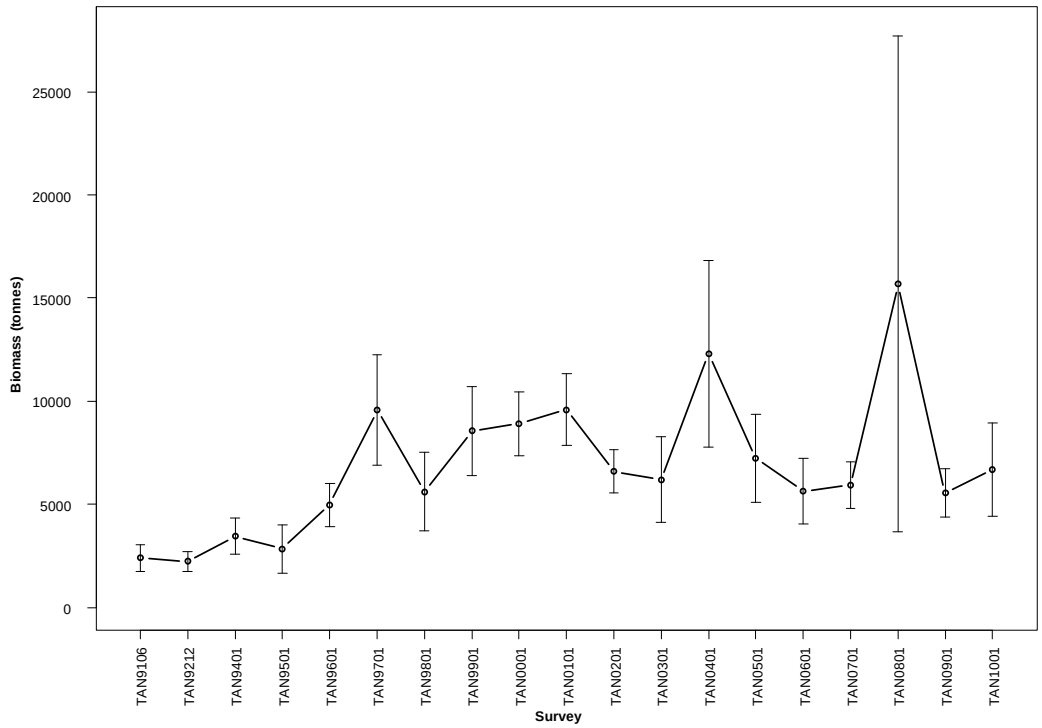
Spiny dogfish (*Squalus acanthias*) SPD

Number of surveys caught 1992–2010 (out of 19):	19
Total catch weight (kg):	76 401.5
Number measured	28 581
Length range (mean) (cm, TL)	4–112 (72.8)
Number weighed	7 700
Length-weight parameters a, b (r^2)	0.001608, 3.229126 (95.2)

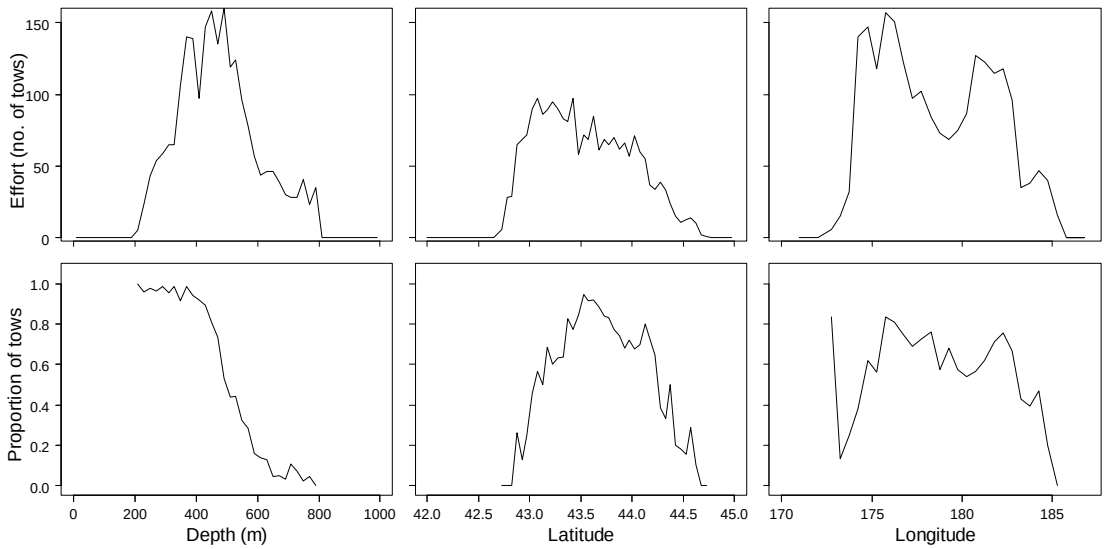
The core survey area and depth range **is not** appropriate for this species. It is found **shallower than 200 m**. Biomass of this species is **very well** estimated in the core survey area. Biomass has **increased** since the start of the time series. Length frequencies **have multiple modes which may contain information about year-class strength**. The length distribution of females is much broader than that of males. Mean length has **increased then decreased** since the start of the time series. Gonad stage data indicate that fish are **of all stages** are observed in the survey.

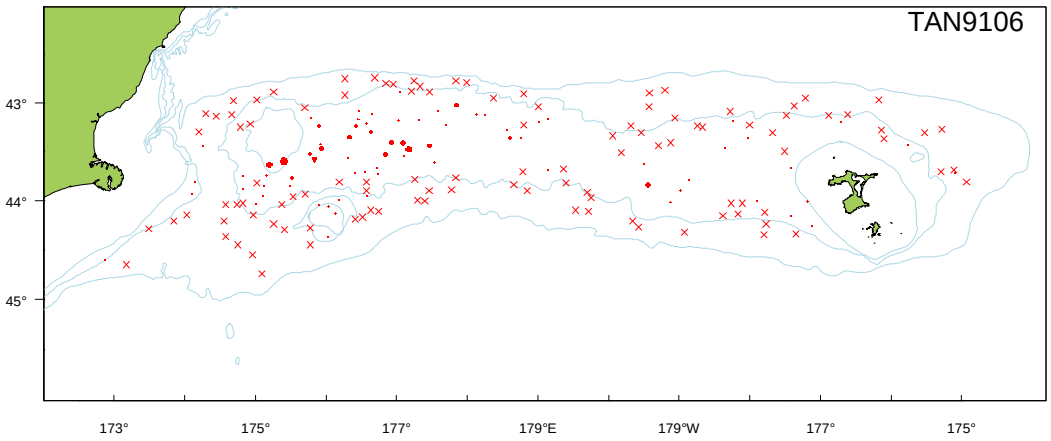
Relative biomass estimates and length summary

			Length (cm)			No.
Year	**Biomass (t)**	**cv (%)**	**Min.**	**Max.**	**Mean**	**measured**
1992	2 396	14	-	-	-	0
1993	2 225	11	52	104	70.5	1 089
1994	3 454	13	54	106	74.9	852
1995	2 841	20	50	103	69.9	740
1996	4 969	10	51	109	75.9	1 094
1997	9 570	14	48	106	71.3	2 149
1998	5 608	17	50	107	73.1	1 170
1999	8 551	13	43	109	75.0	1 892
2000	8 906	9	13	107	76.6	2 325
2001	9 586	9	48	105	75.9	2 189
2002	6 600	8	49	105	74.2	1 790
2003	6 191	17	4	106	75.4	1 350
2004	12 289	18	24	104	73.4	1 711
2005	7 227	15	23	106	69.2	2 065
2006	5 650	14	53	105	69.8	1 468
2007	5 922	10	53	107	72.9	1 168
2008	15 674	38	54	106	75.4	1 376
2009	5 548	11	50	112	67.8	1 576
2010	6 698	17	51	103	67.6	1 644



Distribution

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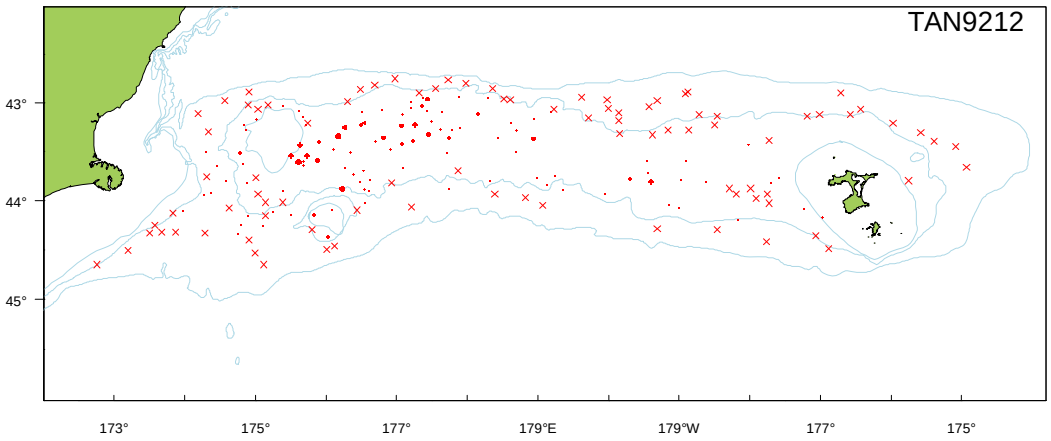
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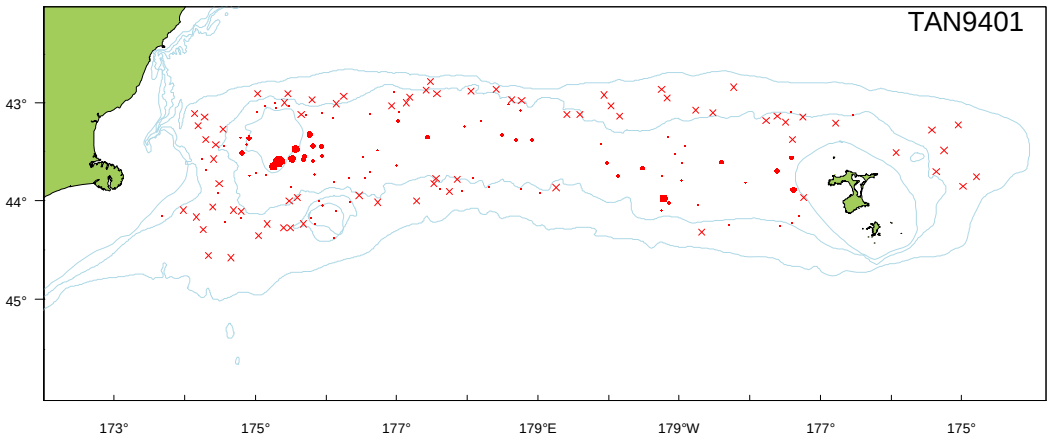
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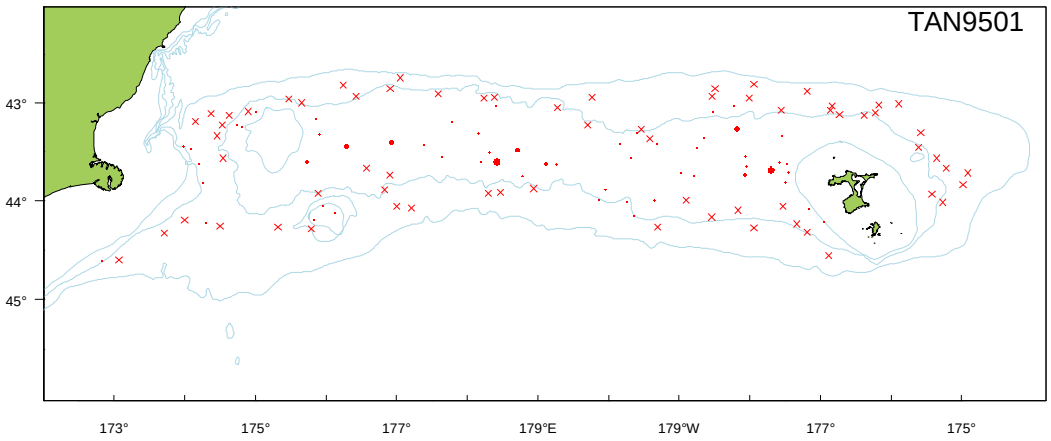
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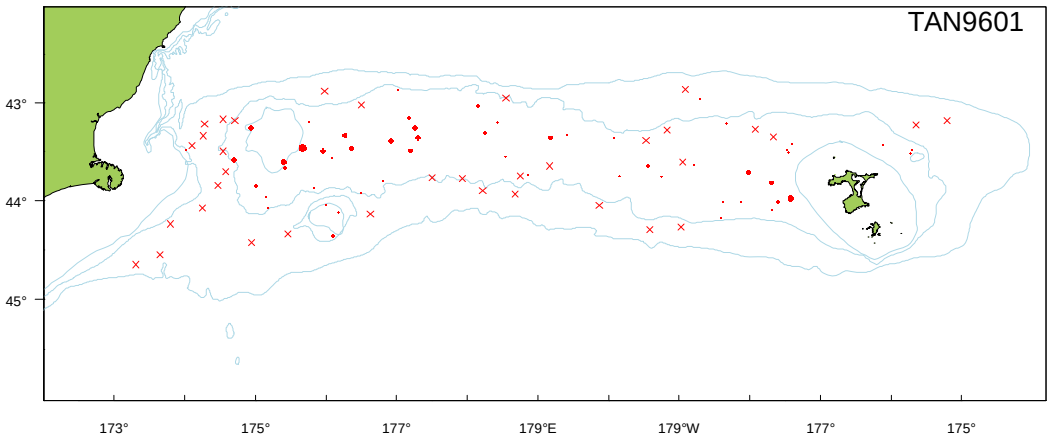
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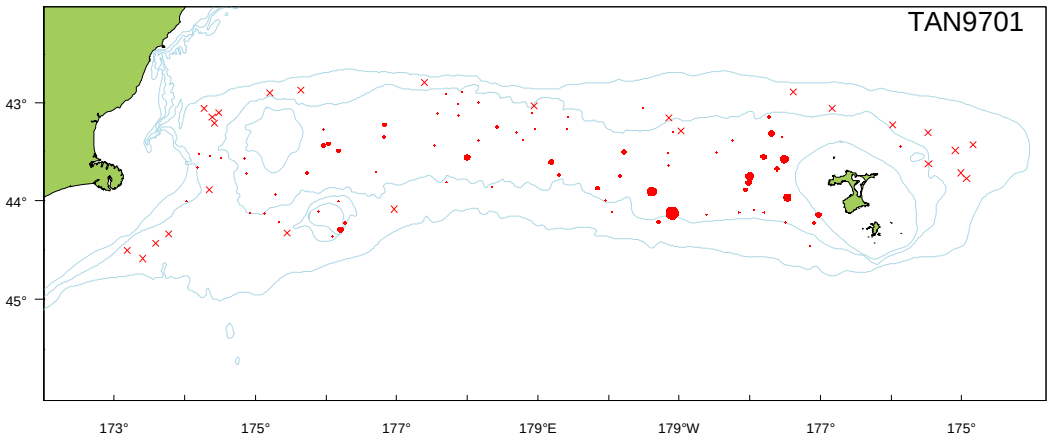
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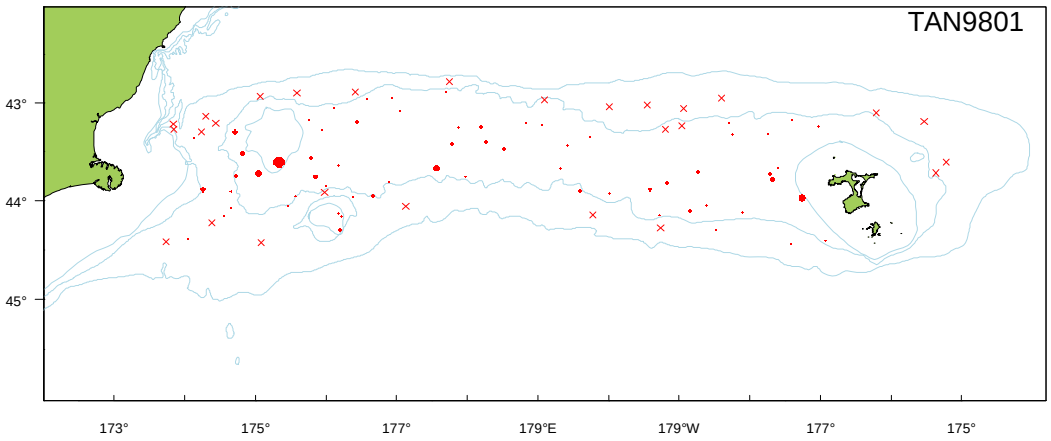
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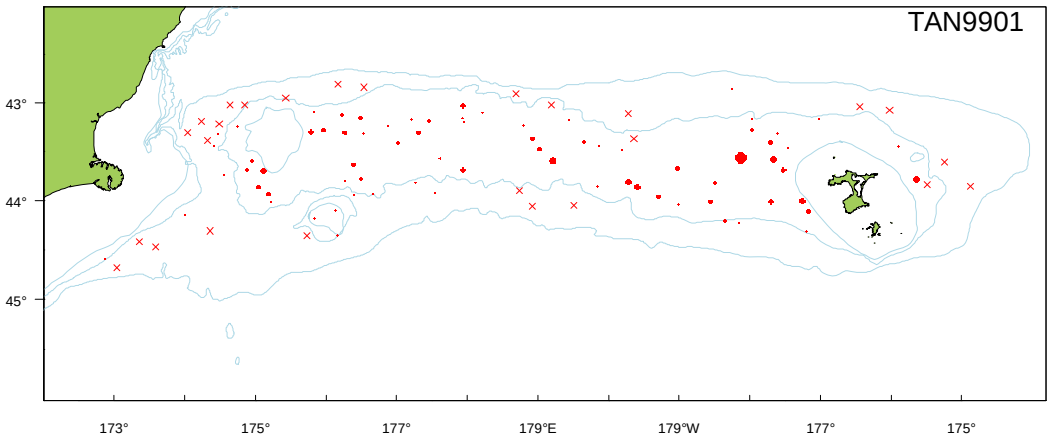
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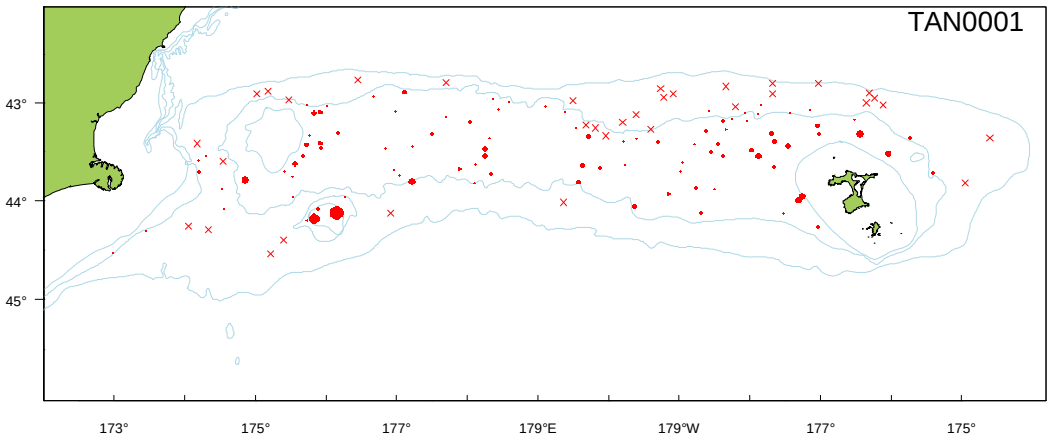
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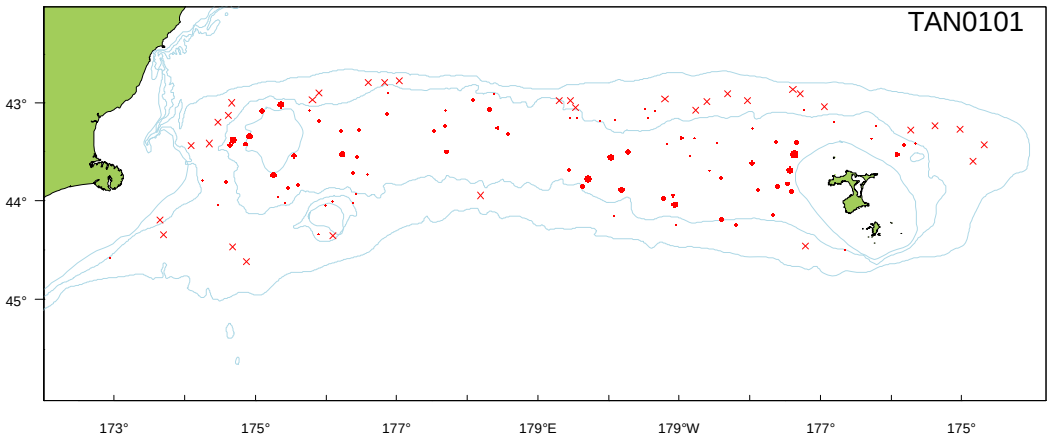
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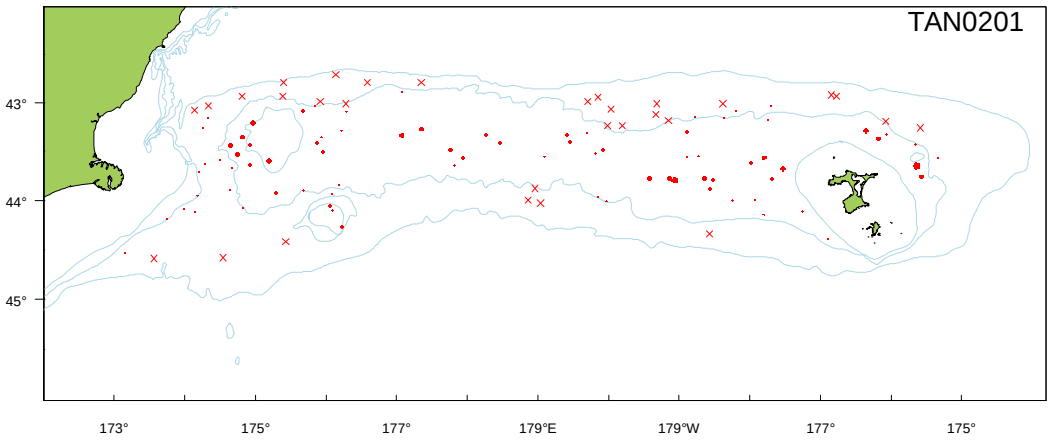
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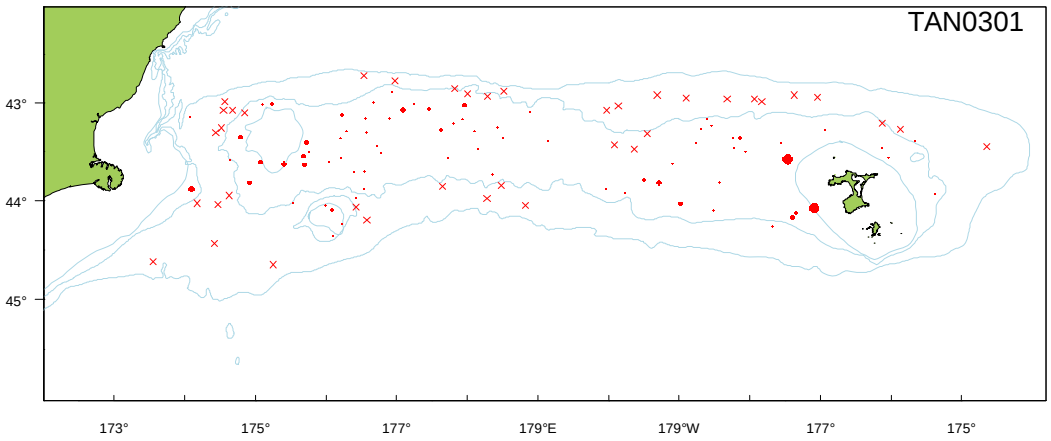
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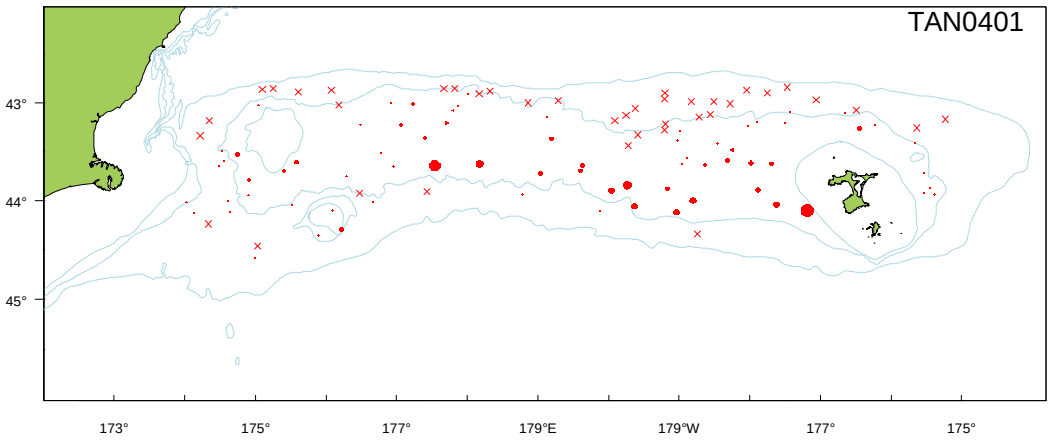
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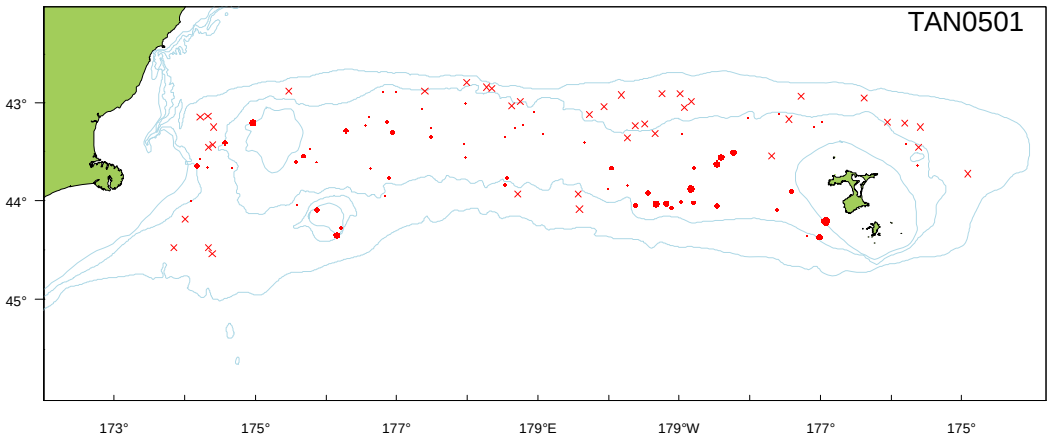
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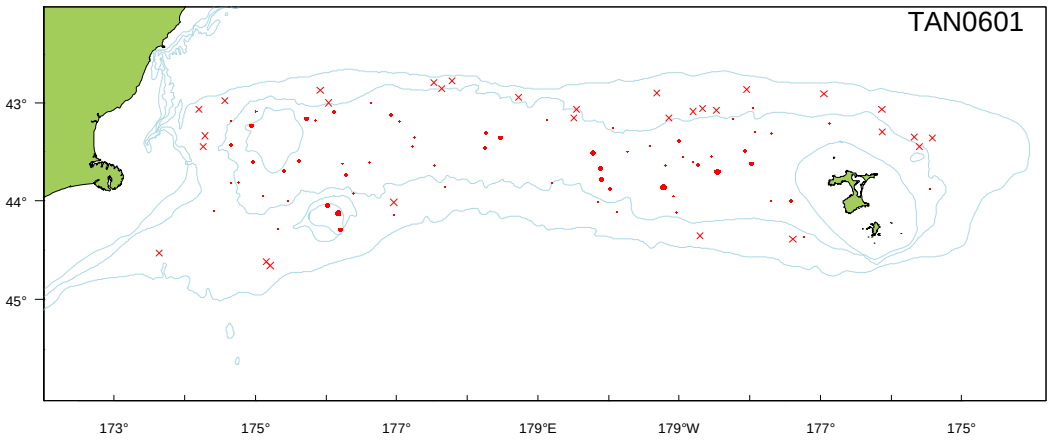
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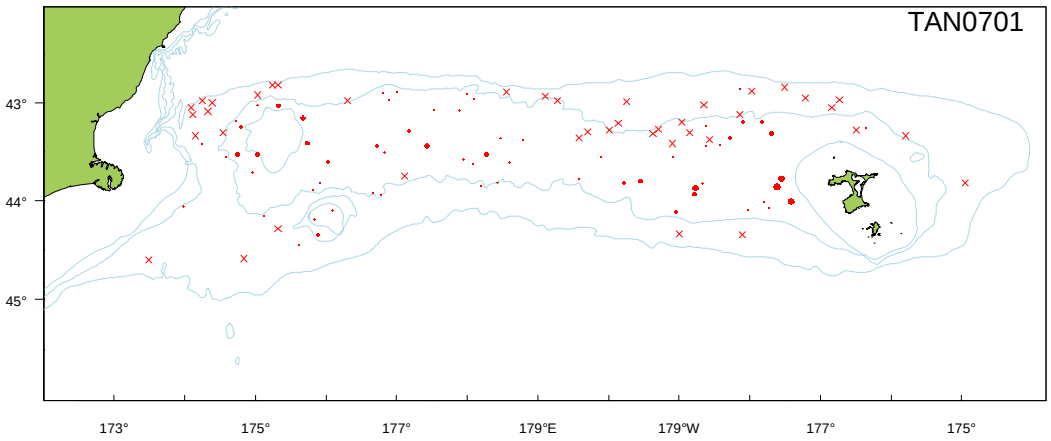
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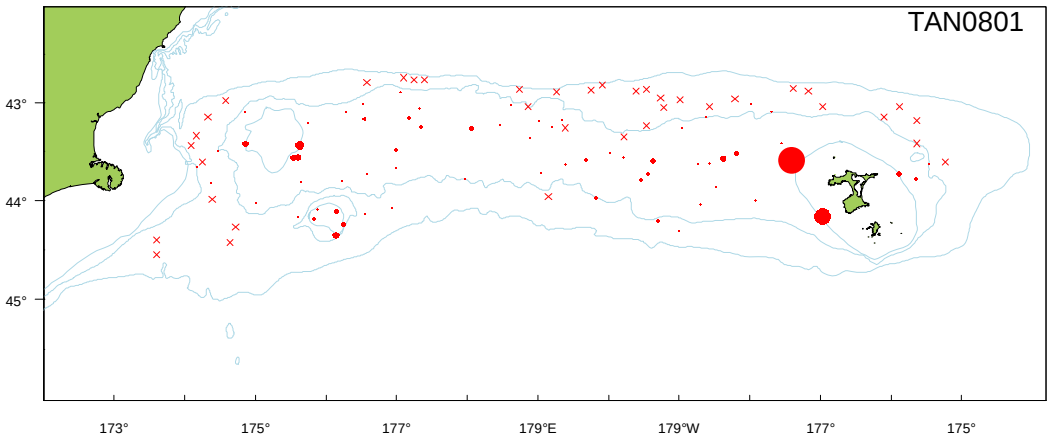
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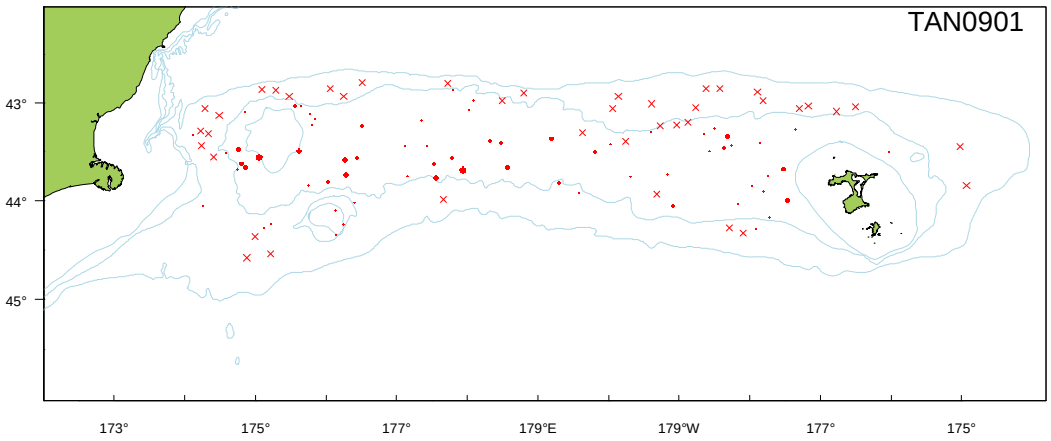
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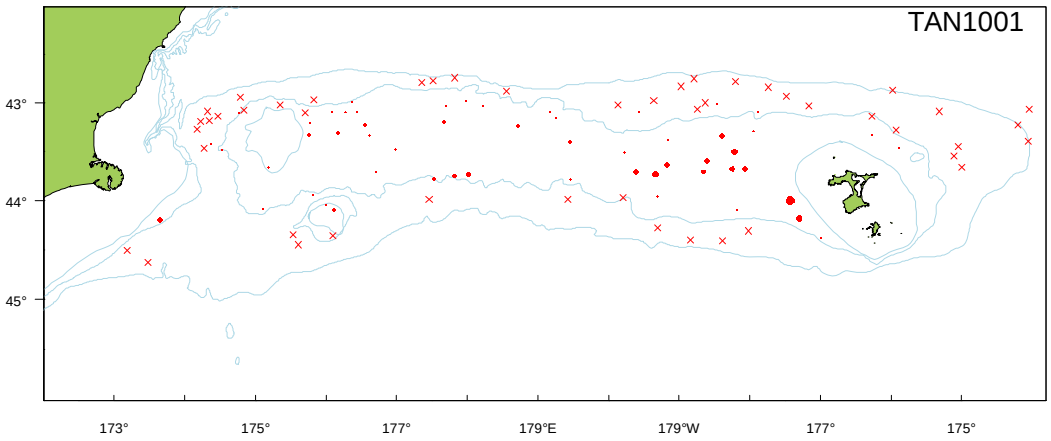
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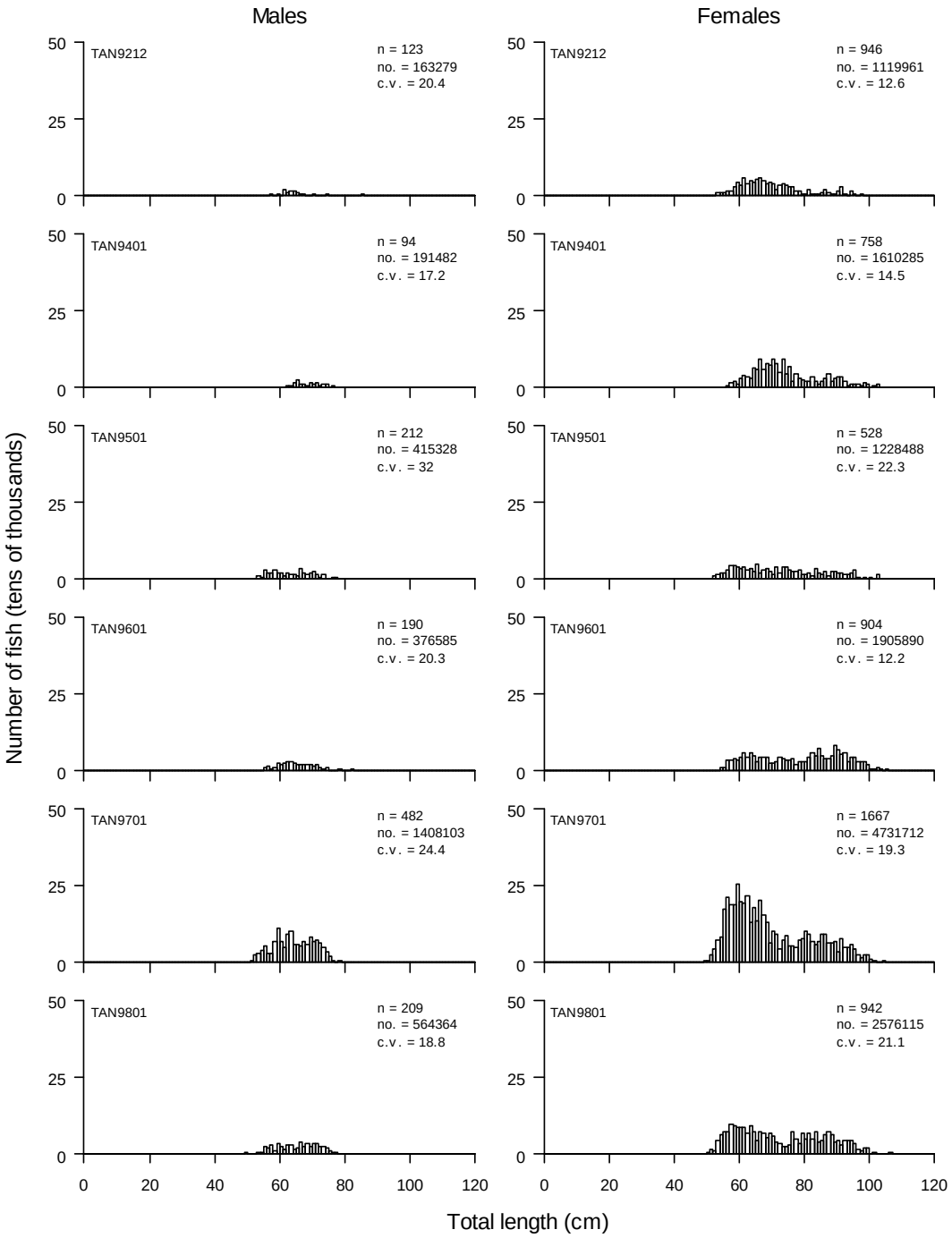
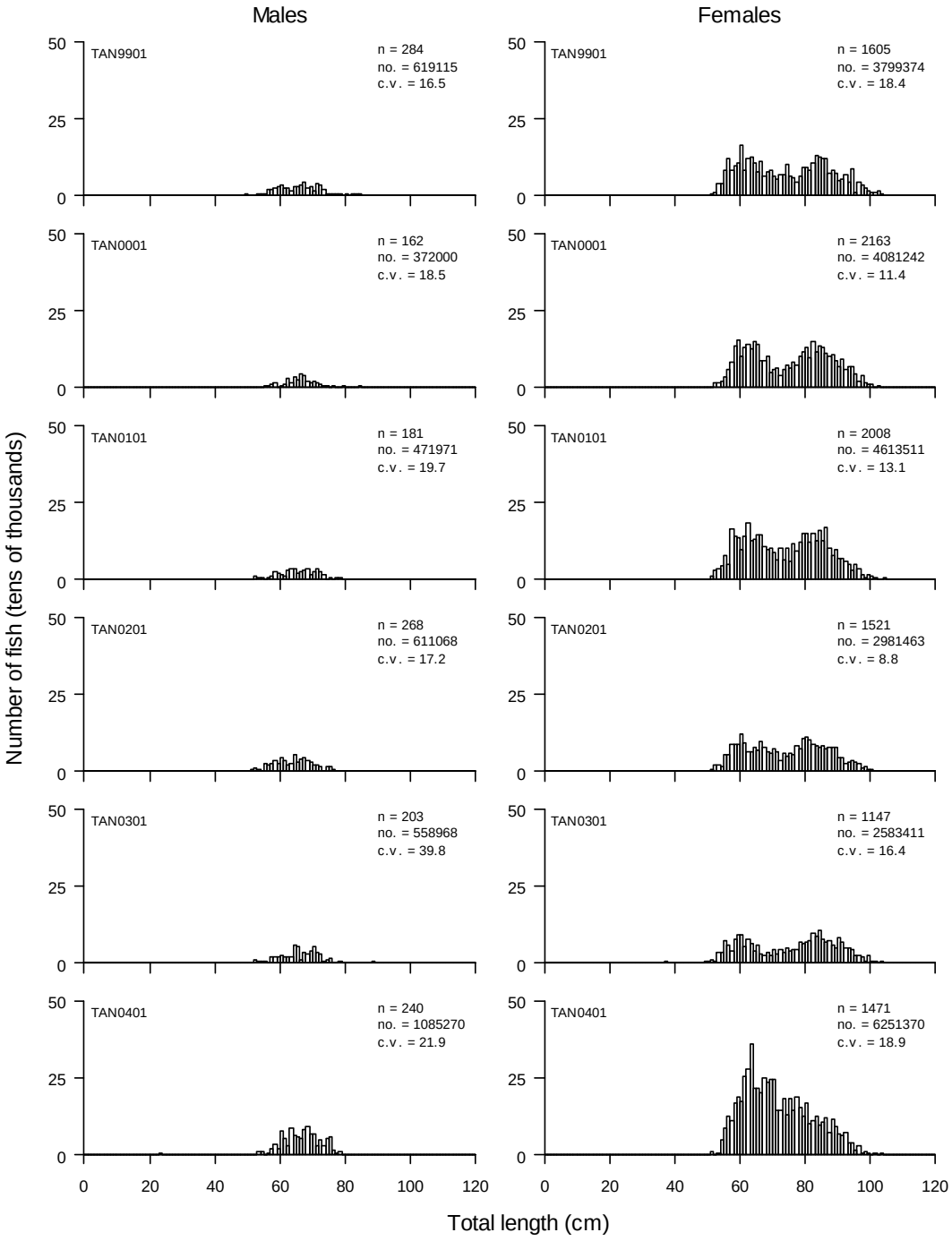
Length Frequencies




Males
Females
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no. = 619115
c.v. = 16.5
TAN9901
n = 1605
no. = 3799374
c.v. = 18.4
TAN0001
n = 162
no. = 372000
c.v. = 18.5
TAN0001
n = 2163
no. = 4081242
c.v. = 11.4
TAN0101
n = 181
no. = 471971
c.v. = 19.7
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n = 2008
no. = 4613511
c.v. = 13.1
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n = 268
no. = 611068
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n = 1521
no. = 2981463
c.v. = 8.8
TAN0301
n = 203
no. = 558968
c.v. = 39.8
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n = 1147
no. = 2583411
c.v. = 16.4
TAN0401
n = 240
no. = 1085270
c.v. = 21.9
TAN0401
n = 1471
no. = 6251370
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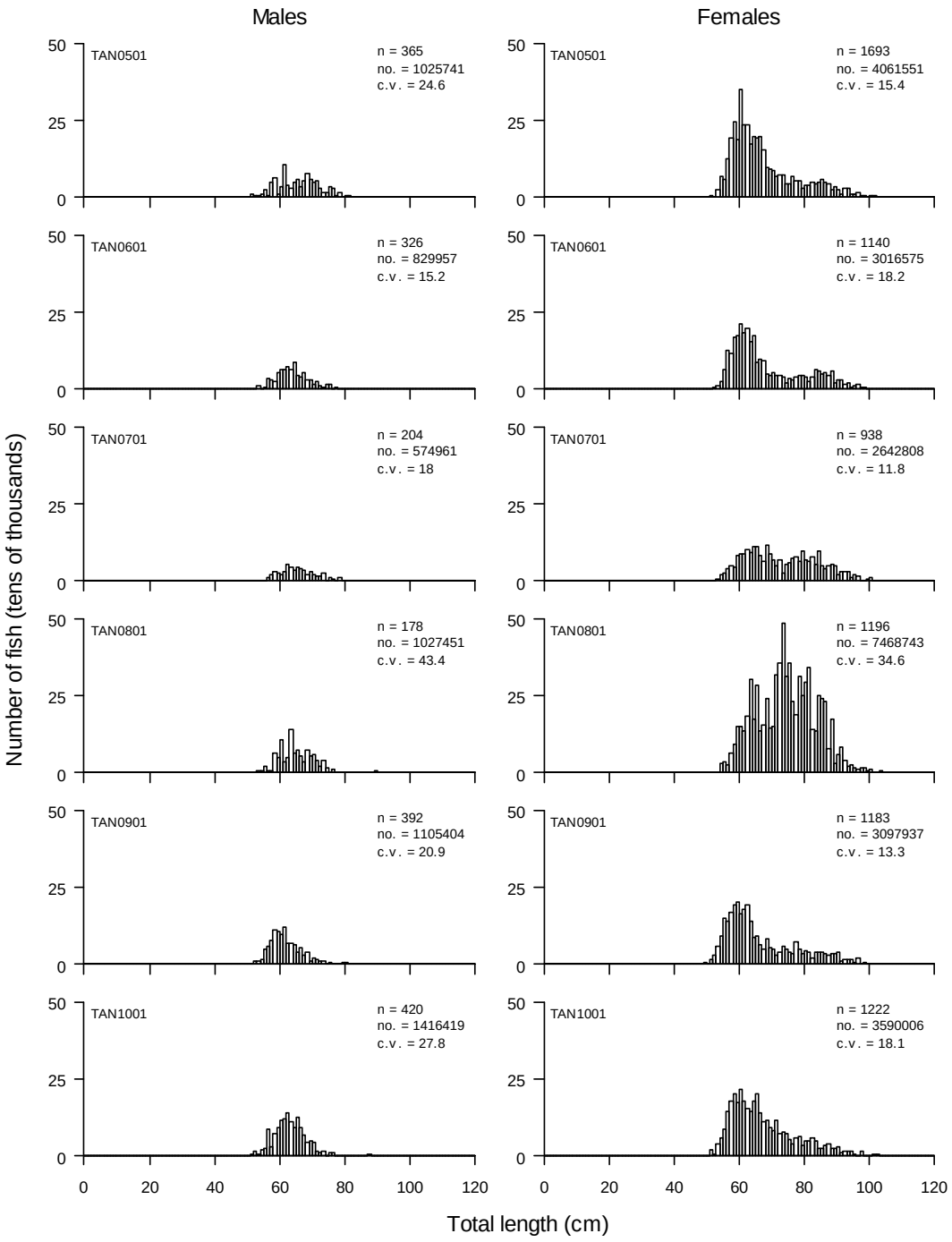
Number of fish (tens of thousands)
0
25
50
0
20
40
60
80
100
120
Total length (cm)


Males
Females
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n = 1693
no. = 4061551
c.v. = 15.4
TAN0601
n = 326
no. = 829957
c.v. = 15.2
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n = 1140
no. = 3016575
c.v. = 18.2
TAN0701
n = 204
no. = 574961
c.v. = 18
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n = 938
no. = 2642808
c.v. = 11.8
TAN0801
n = 178
no. = 1027451
c.v. = 43.4
TAN0801
n = 1196
no. = 7468743
c.v. = 34.6
TAN0901
n = 392
no. = 1105404
c.v. = 20.9
TAN0901
n = 1183
no. = 3097937
c.v. = 13.3
TAN1001
n = 420
no. = 1416419
c.v. = 27.8
TAN1001
n = 1222
no. = 3590006
c.v. = 18.1
Number of fish (tens of thousands)
Total length (cm)
0
25
50
0
20
40
60
80
100
120

Gonad Stage Information (Cartilagenous)

Males

Year	p_M1	p_M2	p_M3	n_allM
1992	NA	NA	NA	0
1993	NA	NA	NA	0
1994	NA	NA	NA	0
1995	NA	NA	NA	0
1996	NA	NA	NA	0
1997	NA	NA	NA	0
1998	NA	NA	NA	0
1999	NA	NA	NA	0
2000	NA	NA	NA	0
2001	NA	NA	NA	0
2002	NA	NA	NA	0
2003	NA	NA	NA	0
2004	NA	NA	NA	0
2005	NA	NA	NA	0
2006	NA	NA	NA	0
2007	NA	NA	NA	0
2008	NA	NA	NA	0
2009	0.02	0.05	0.93	132
2010	0.01	0.18	0.81	210
ALL	0.01	0.13	0.86	342

Females

Year	p_F1	p_F2	p_F3	p_F4	p_F5	p_F6	n_allF
1992	NA	NA	NA	NA	NA	NA	0
1993	NA	NA	NA	NA	NA	NA	0
1994	NA	NA	NA	NA	NA	NA	0
1995	NA	NA	NA	NA	NA	NA	0
1996	NA	NA	NA	NA	NA	NA	0
1997	NA	NA	NA	NA	NA	NA	0
1998	NA	NA	NA	NA	NA	NA	0
1999	NA	NA	NA	NA	NA	NA	0
2000	NA	NA	NA	NA	NA	NA	0
2001	NA	NA	NA	NA	NA	NA	0
2002	NA	NA	NA	NA	NA	NA	0
2003	NA	NA	NA	NA	NA	NA	0
2004	NA	NA	NA	NA	NA	NA	0
2005	NA	NA	NA	NA	NA	NA	0
2006	NA	NA	NA	NA	NA	NA	0
2007	NA	NA	NA	NA	NA	NA	0
2008	NA	NA	NA	NA	NA	NA	0
2009	0.41	0.11	0.07	0.18	0.22	0.01	370
2010	0.21	0.31	0.12	0.18	0.16	0.01	692
ALL	0.28	0.24	0.1	0.18	0.18	0.01	1 062

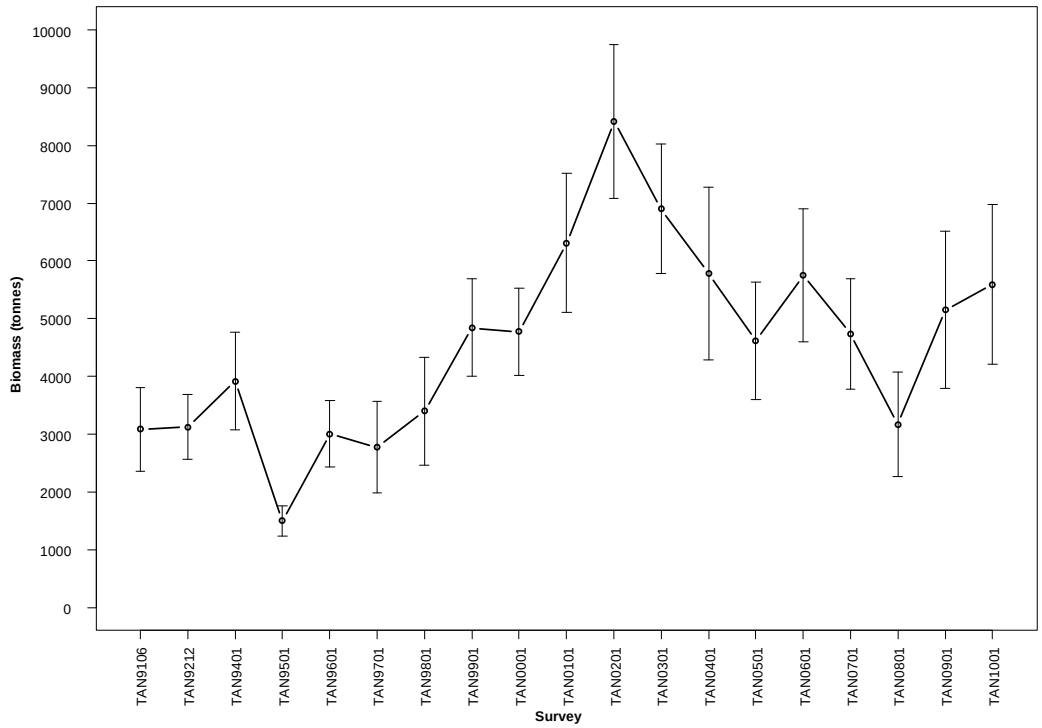
Sea perch (*Helicolenus* spp.) SPE

Number of surveys caught 1992–2010 (out of 19):	19
Total catch weight (kg):	48 878.7
Number measured	51 741
Length range (mean) (cm, TL)	9–53 (28.4)
Number weighed	12 467
Length-weight parameters a, b (r^2)	0.010205, 3.130707 (98.46)

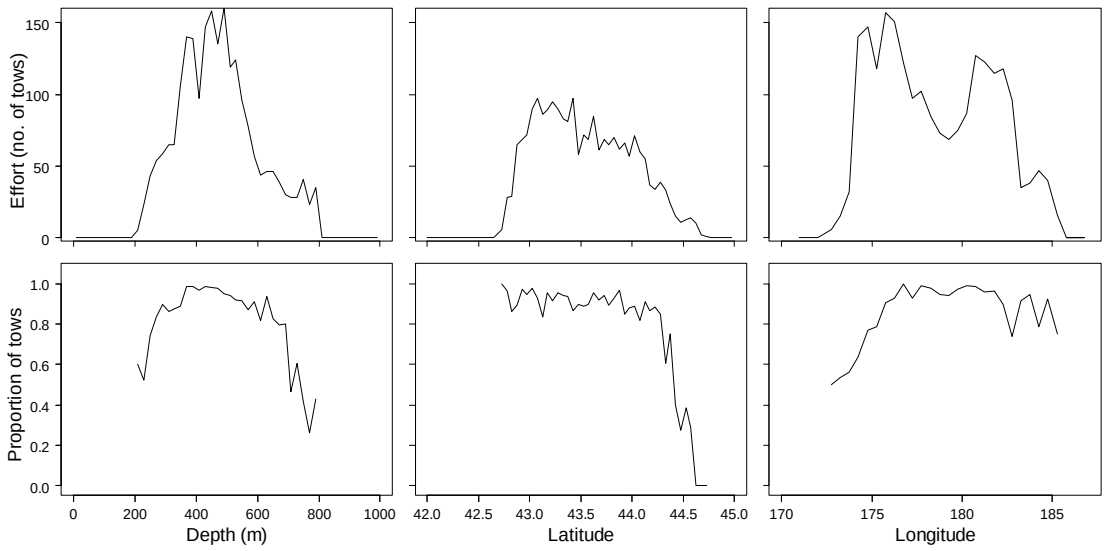
The core survey area and depth range **is** appropriate for this species. Biomass of this species is **very well** estimated in the core survey area. Biomass has **increased** since the start of the time series. Catch rates are highest in the **north and west**. Length frequencies **have multiple modes which may contain information about year-class strength**. Mean length has **decreased** since the start of the time series. Gonad stage data indicate that **most fish are resting or immature, but a small proportion of spawning fish** are caught during the survey.

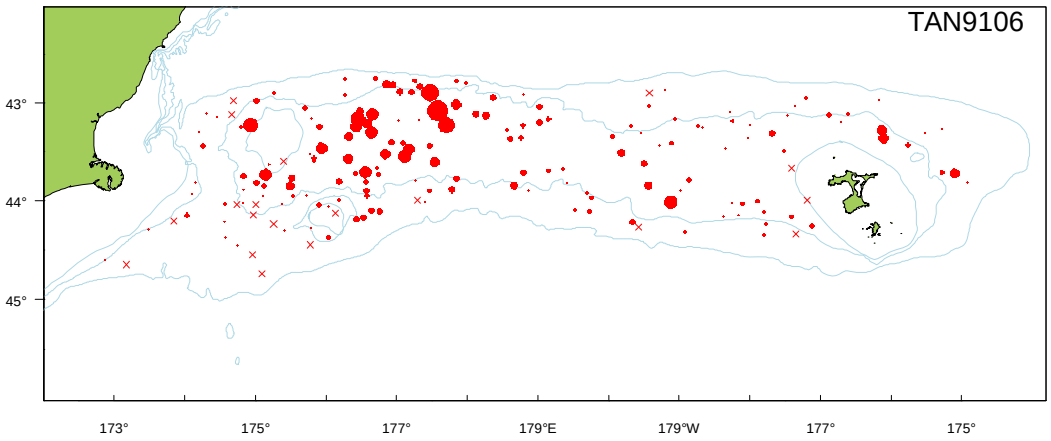
Relative biomass estimates and length summary

			Length (cm)			
Year	**Biomass (t)**	**cv (%)**	**Min.**	**Max.**	**Mean**	**No. measured**
1992	3 085	12	-	-	-	0
1993	3 124	9	12	50	28.8	2 178
1994	3 919	11	12	52	29.2	2 345
1995	1 498	9	16	53	32.3	1 069
1996	3 006	10	13	50	28.6	2 105
1997	2 773	14	12	49	29.4	1 870
1998	3 397	14	11	51	30.3	2 205
1999	4 842	9	10	53	28.6	3 151
2000	4 776	8	11	52	28.6	3 404
2001	6 310	10	10	50	29.0	3 318
2002	8 417	8	11	50	28.6	3 579
2003	6 904	8	9	52	27.2	4 596
2004	5 786	13	10	51	29.2	2 200
2005	4 615	11	11	49	28.4	2 727
2006	5 752	10	12	47	28.5	2 696
2007	4 736	10	10	50	27.7	2 788
2008	3 170	14	10	47	27.7	2 492
2009	5 149	13	12	49	27.6	3 220
2010	5 594	12	10	47	26.2	2 976



Distribution

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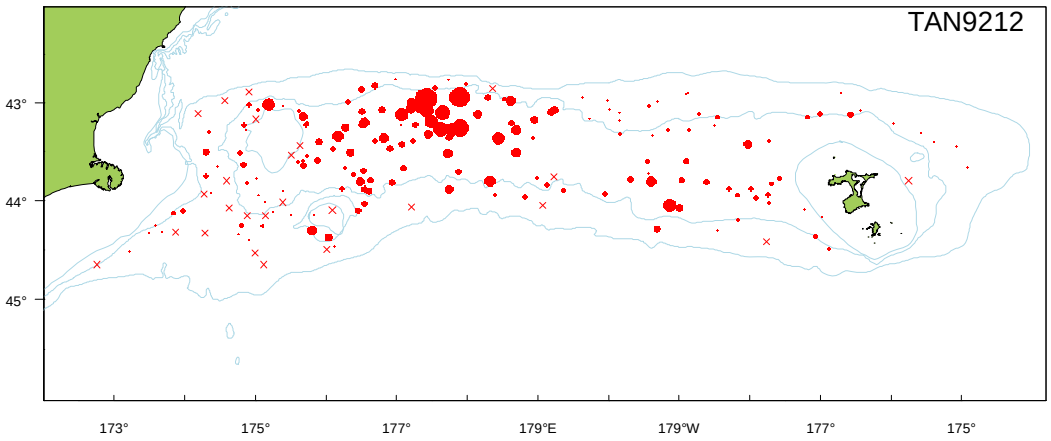
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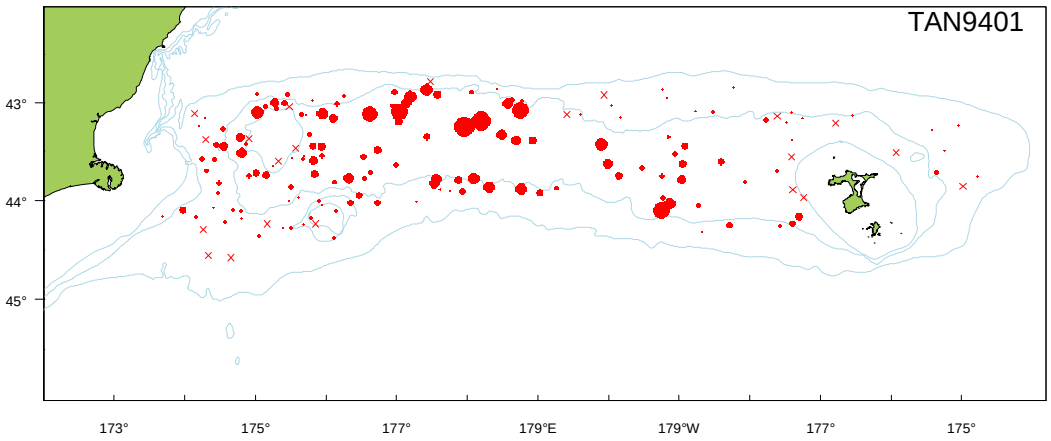
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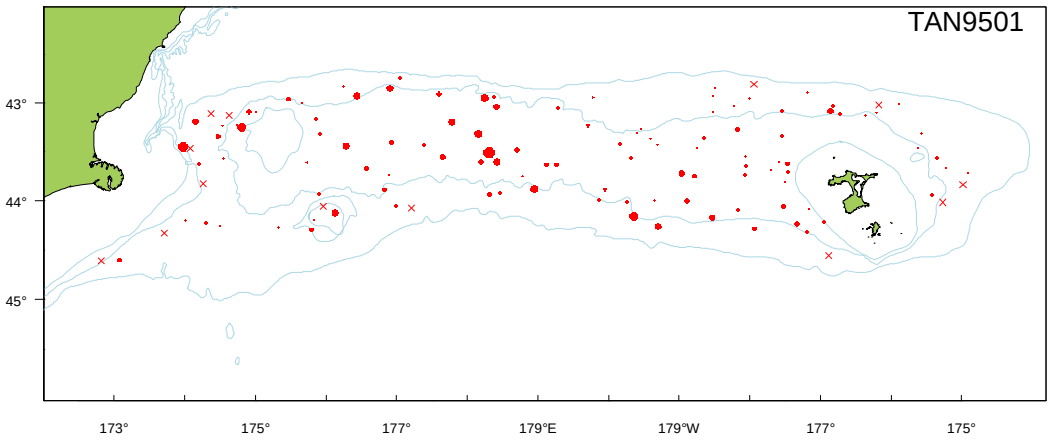
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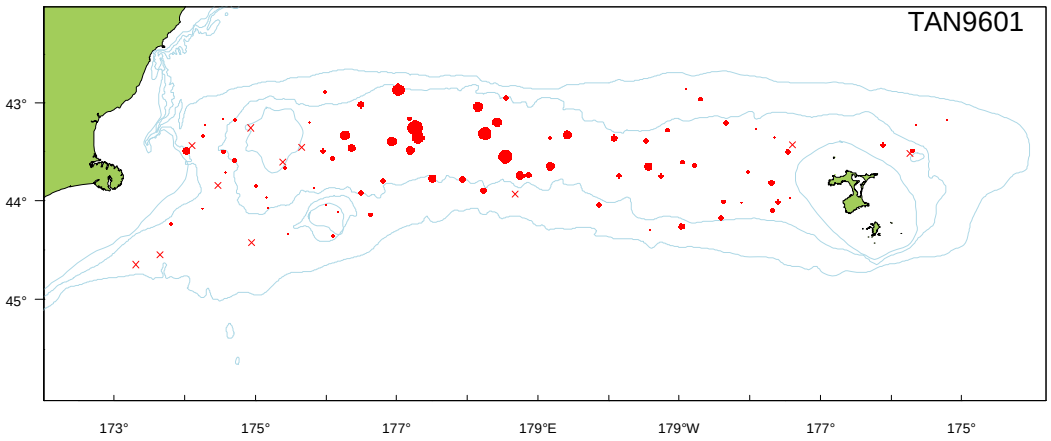
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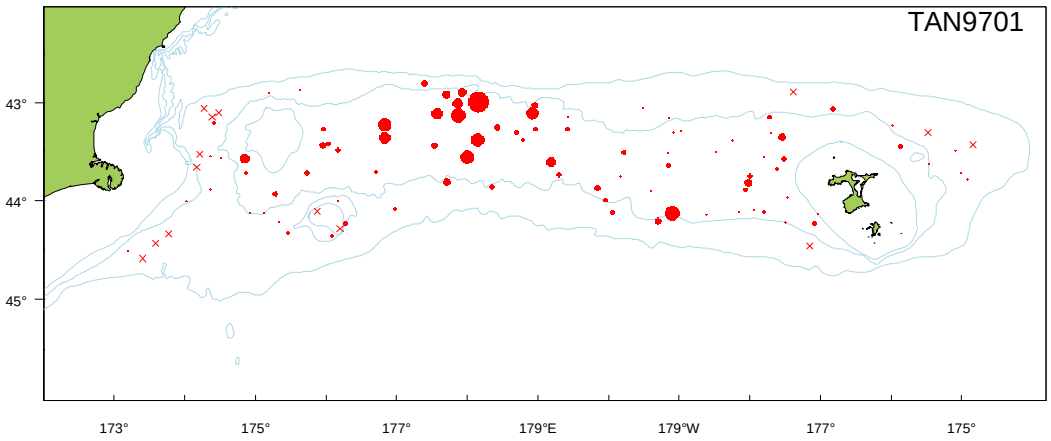
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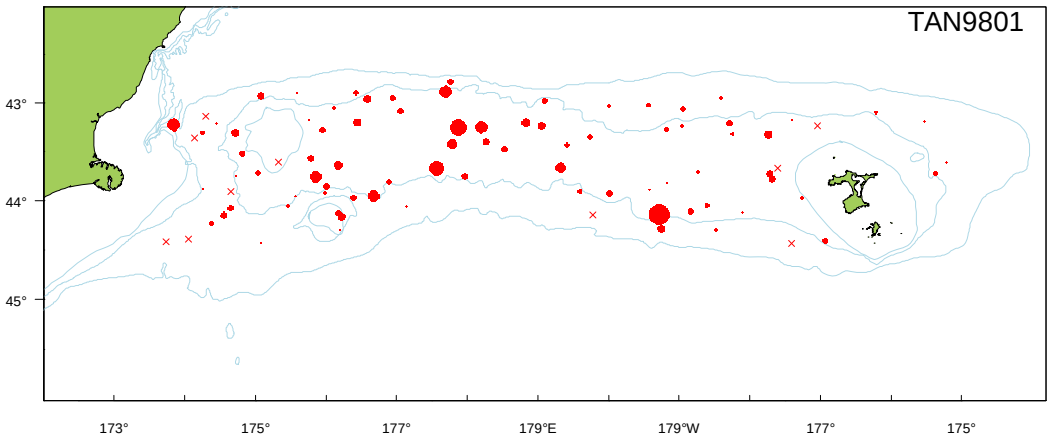
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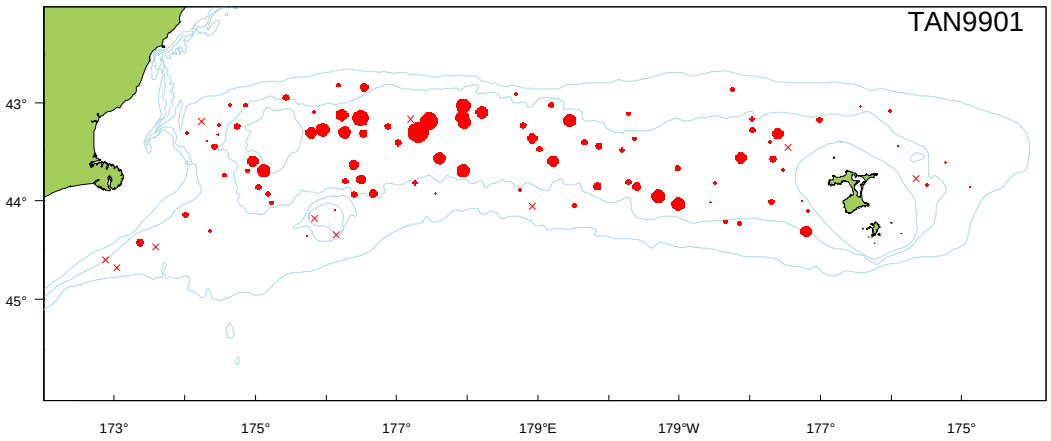
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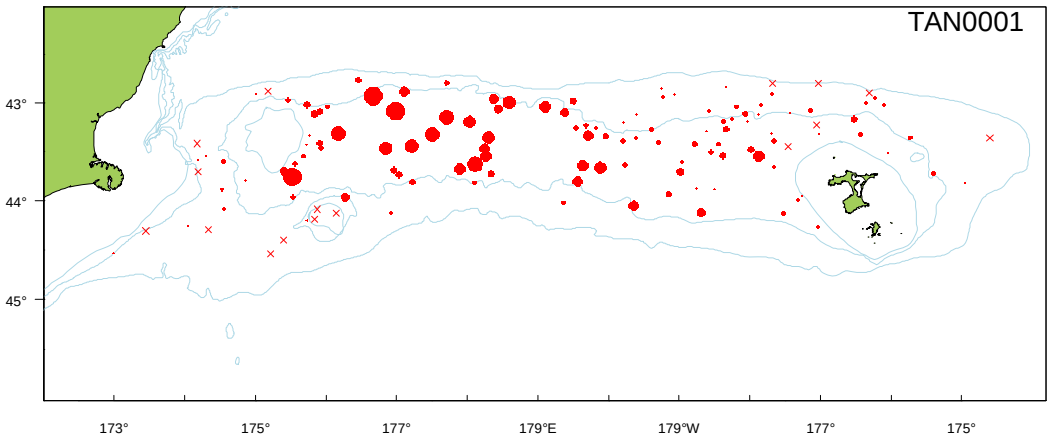
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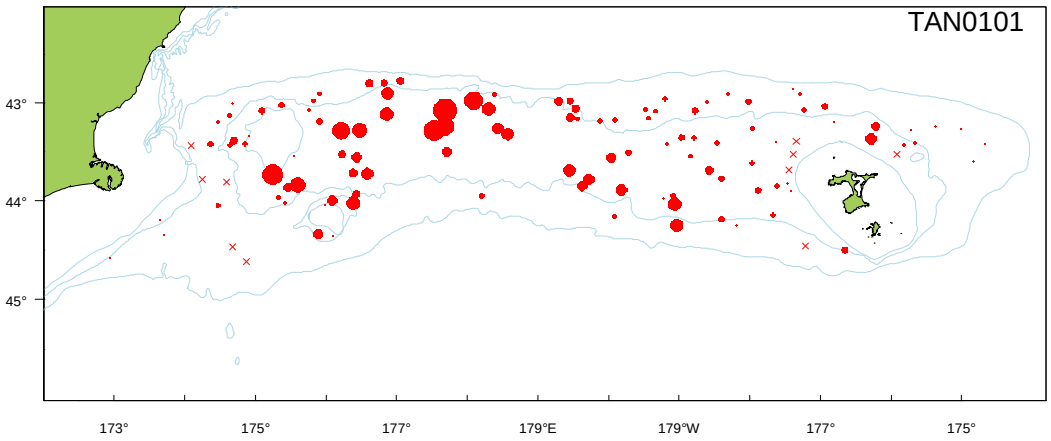
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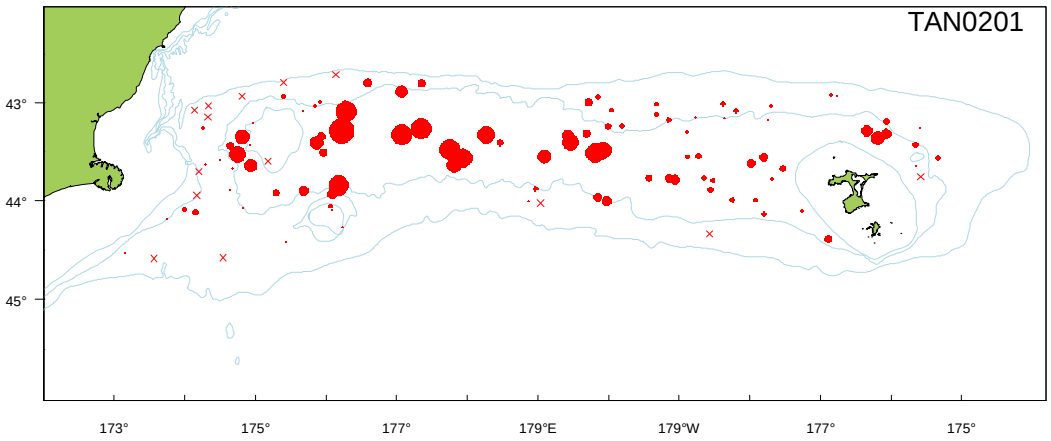
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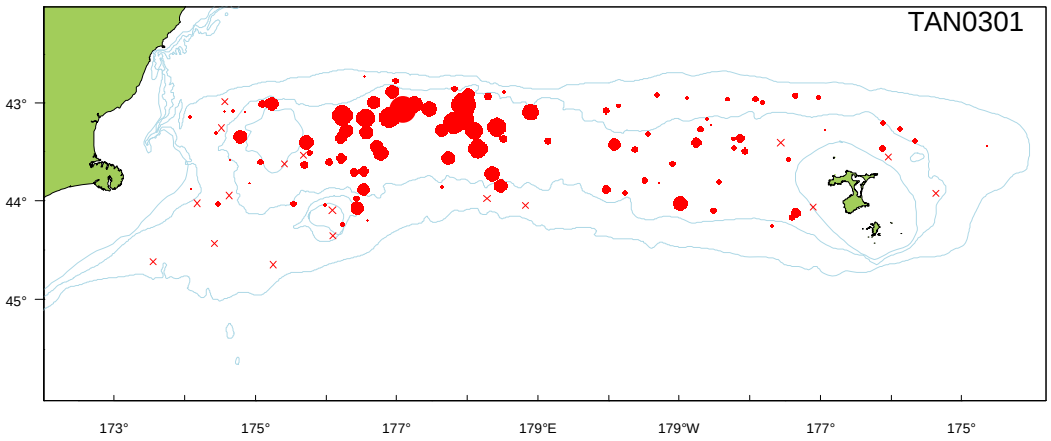
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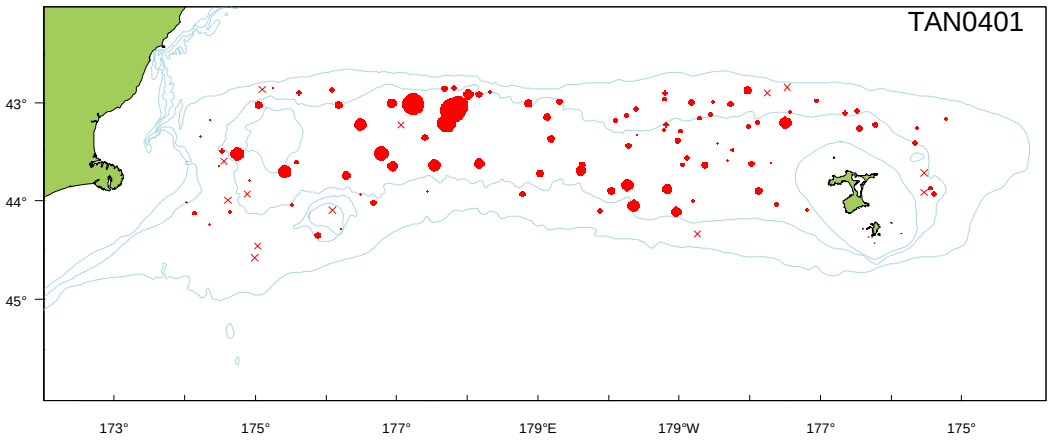
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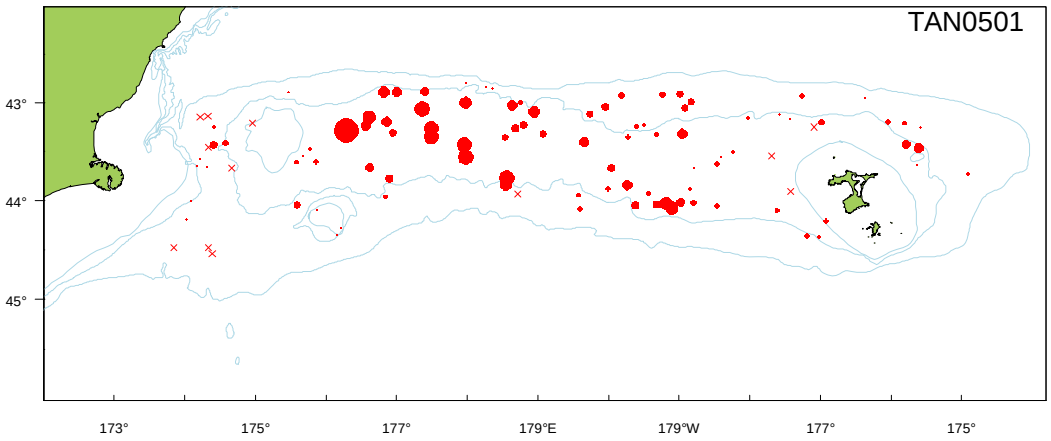
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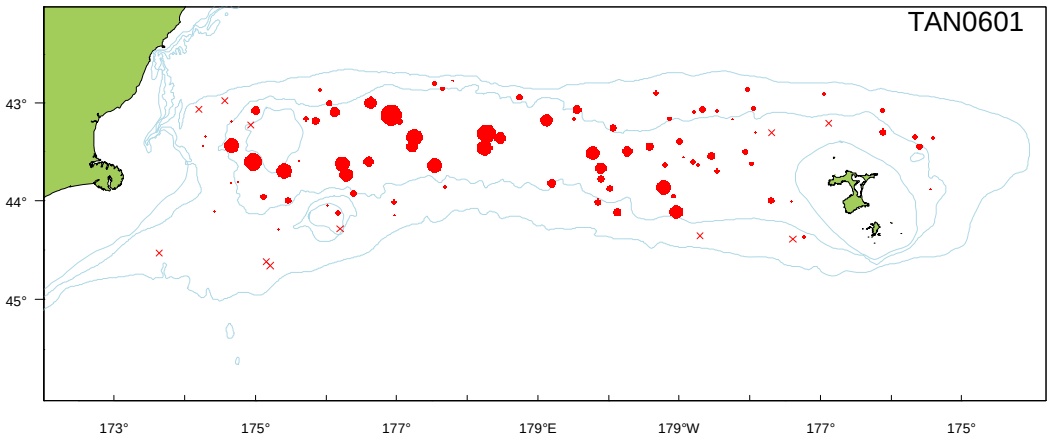
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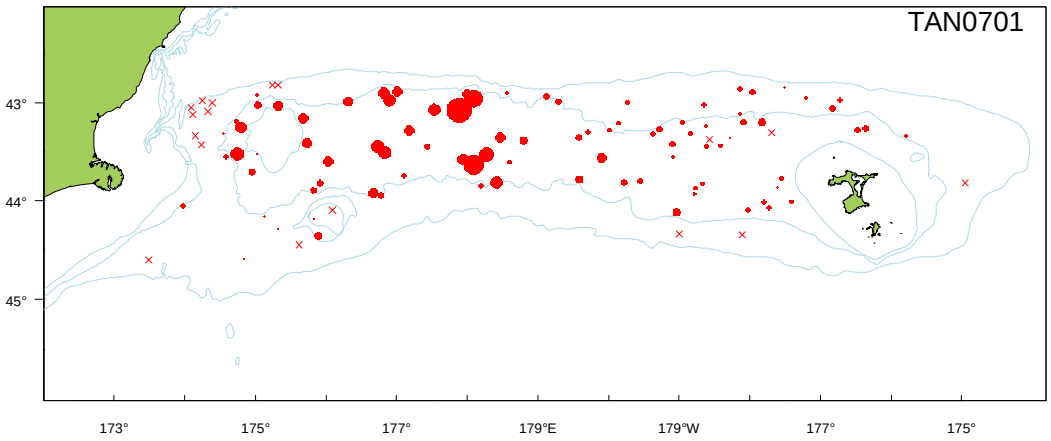
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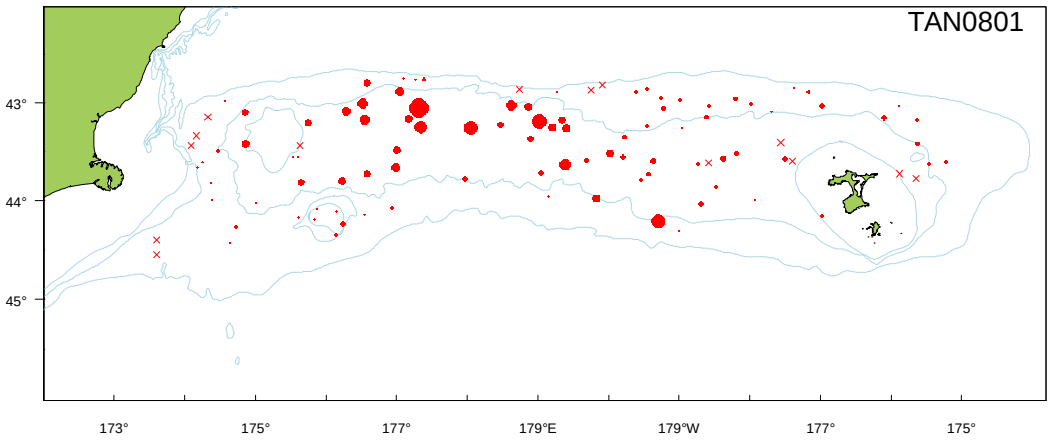
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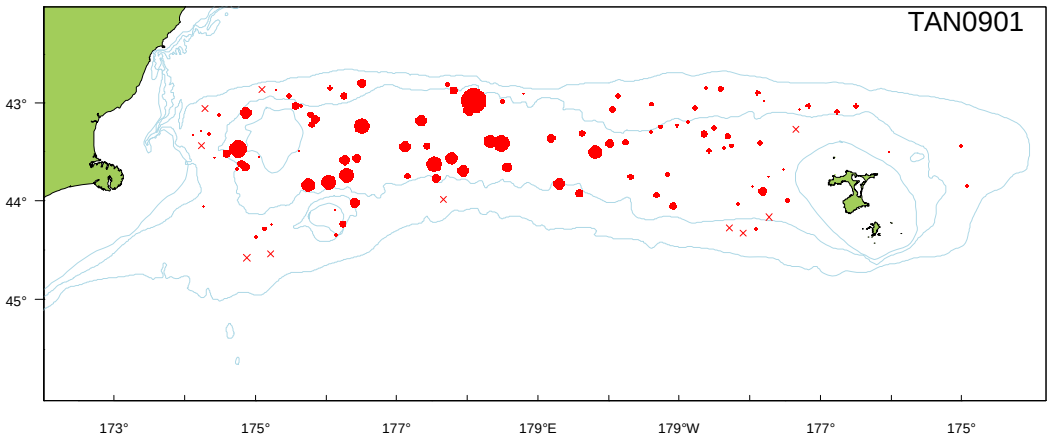
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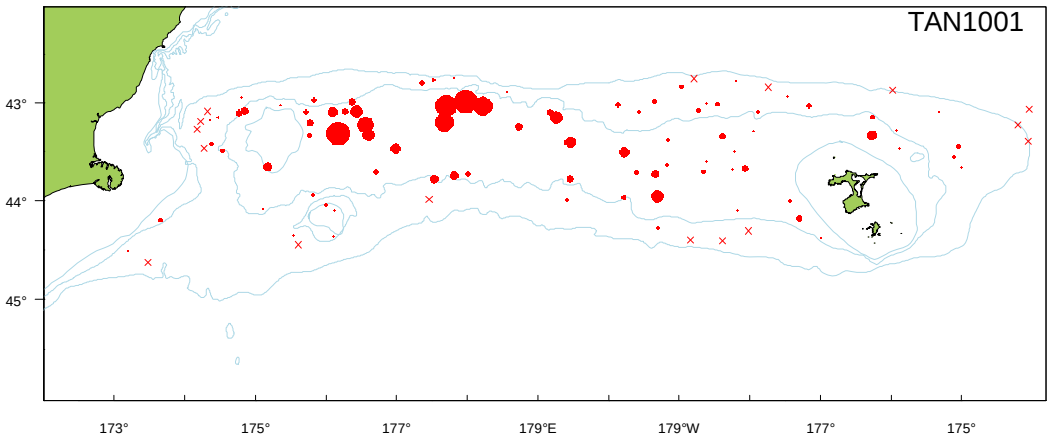
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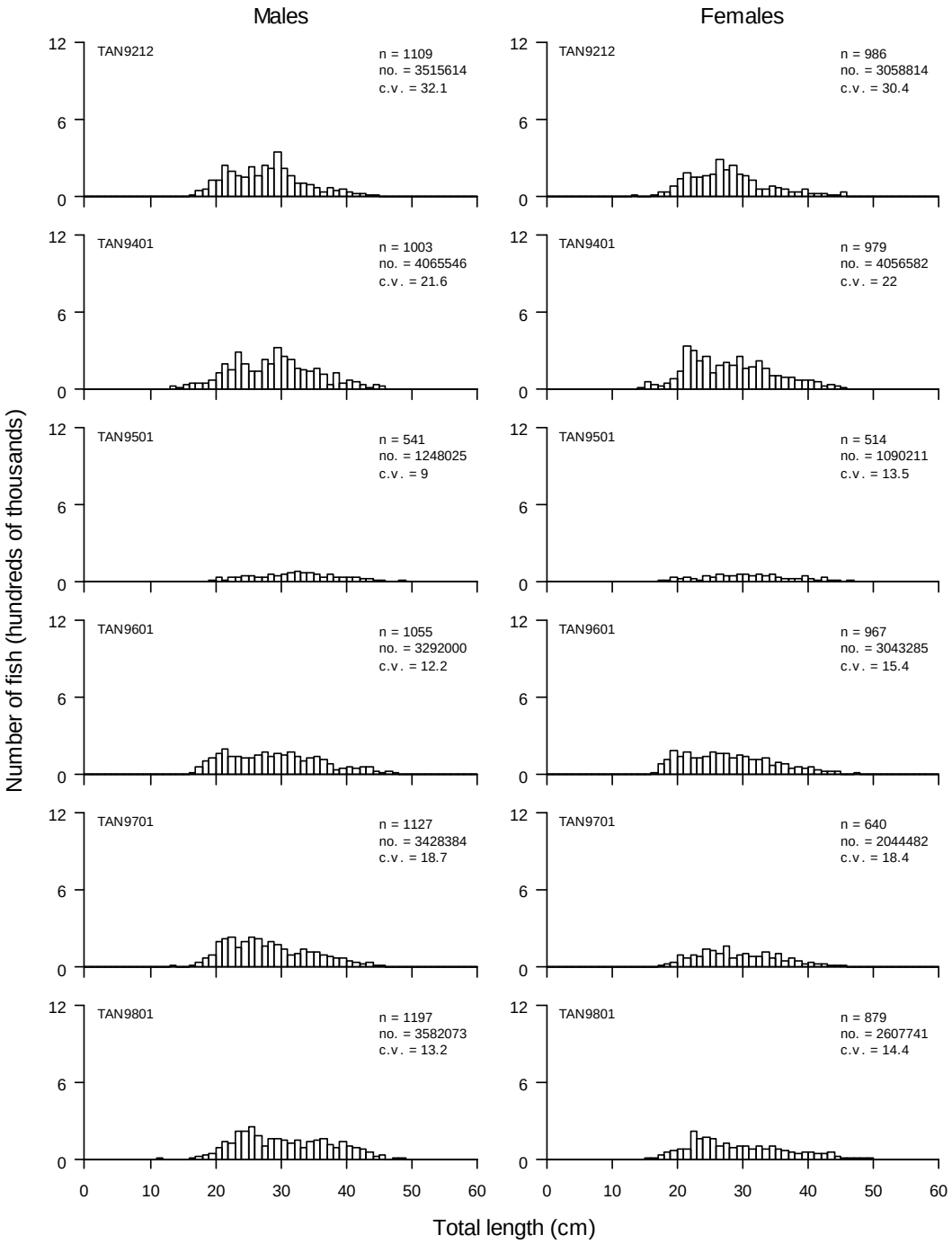
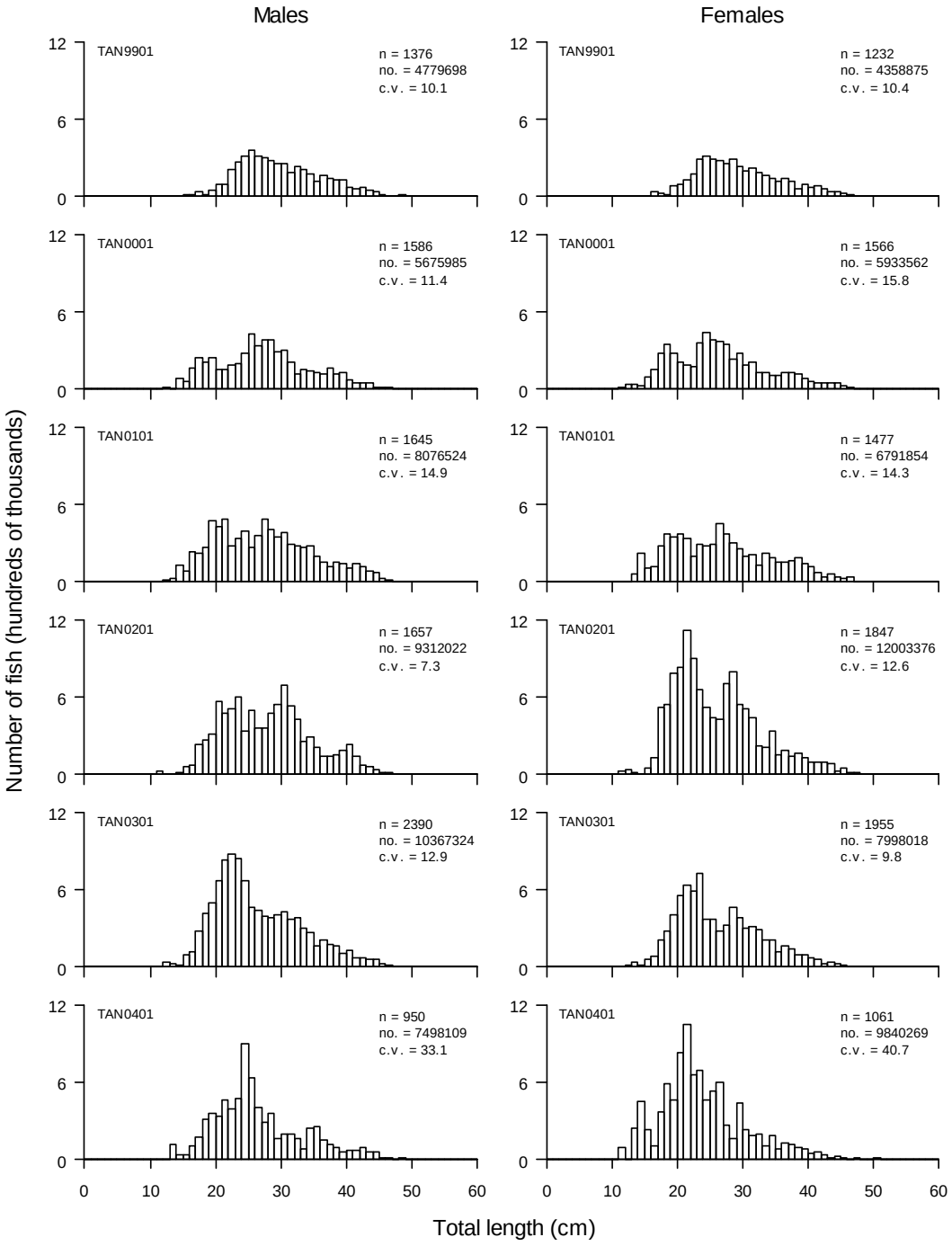
Length Frequencies




Males
Females
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TAN9901
n = 1232
no. = 4358875
c.v. = 10.4
TAN0001
n = 1586
no. = 5675985
c.v. = 11.4
TAN0001
n = 1566
no. = 5933562
c.v. = 15.8
TAN0101
n = 1645
no. = 8076524
c.v. = 14.9
TAN0101
n = 1477
no. = 6791854
c.v. = 14.3
TAN0201
n = 1657
no. = 9312022
c.v. = 7.3
TAN0201
n = 1847
no. = 12003376
c.v. = 12.6
TAN0301
n = 2390
no. = 10367324
c.v. = 12.9
TAN0301
n = 1955
no. = 7998018
c.v. = 9.8
TAN0401
n = 950
no. = 7498109
c.v. = 33.1
TAN0401
n = 1061
no. = 9840269
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Number of fish (hundreds of thousands)
Total length (cm)
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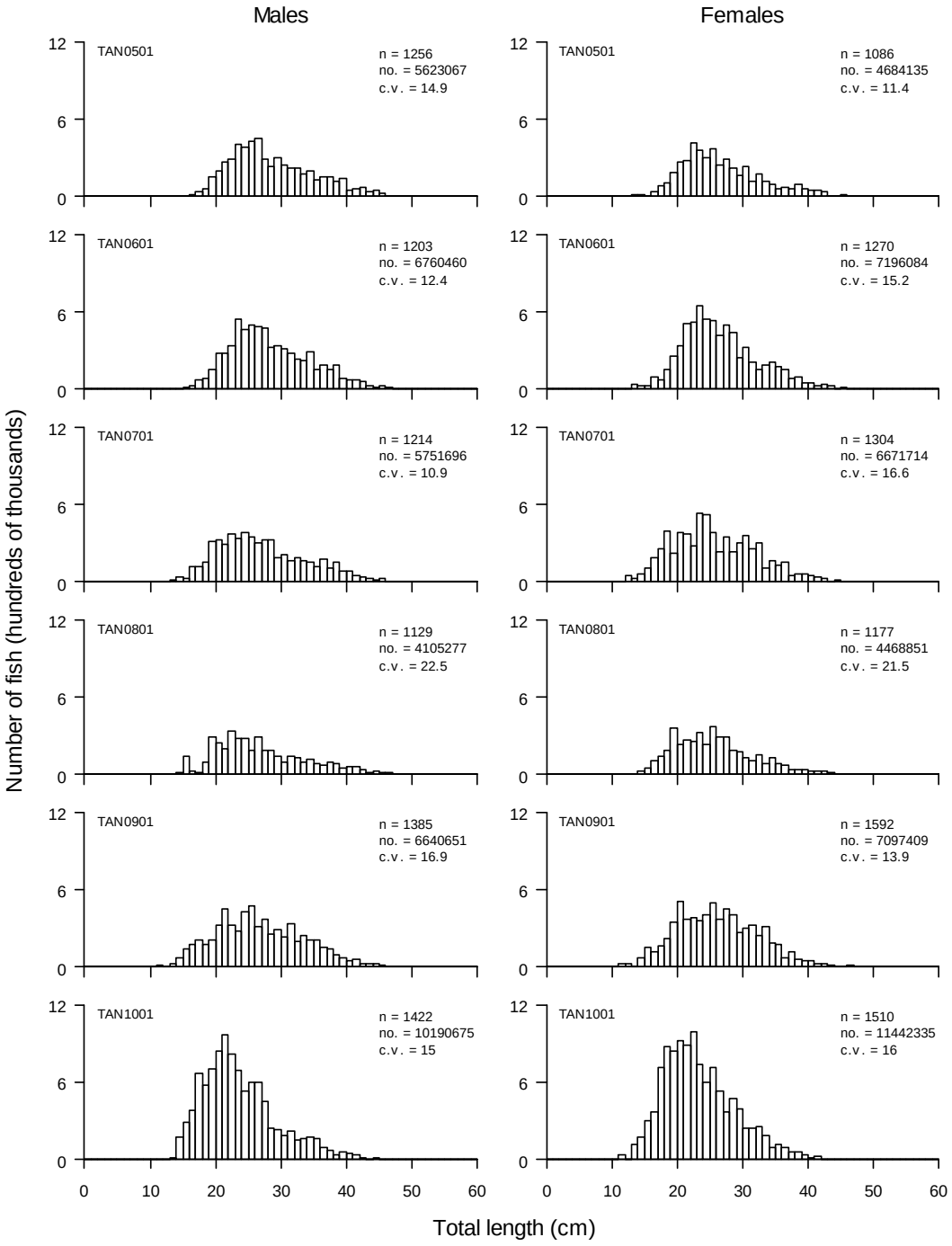
12
0
10
20
30
40
50
60


Males
Females
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Total length (cm)
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no. = 5623067
c.v. = 14.9
TAN0501
n = 1086
no. = 4684135
c.v. = 11.4
TAN0601
n = 1203
no. = 6760460
c.v. = 12.4
TAN0601
n = 1270
no. = 7196084
c.v. = 15.2
TAN0701
n = 1214
no. = 5751696
c.v. = 10.9
TAN0701
n = 1304
no. = 6671714
c.v. = 16.6
TAN0801
n = 1129
no. = 4105277
c.v. = 22.5
TAN0801
n = 1177
no. = 4468851
c.v. = 21.5
TAN0901
n = 1385
no. = 6640651
c.v. = 16.9
TAN0901
n = 1592
no. = 7097409
c.v. = 13.9
TAN1001
n = 1422
no. = 10190675
c.v. = 15
TAN1001
n = 1510
no. = 11442335
c.v. = 16

Gonad Stage Information

Males

Year	p_M1	p_M2	p_M3	p_M4	p_M5	p_M6	p_M7	n_allM
1992	NA	NA	NA	NA	NA	NA	NA	0
1993	NA	NA	NA	NA	NA	NA	NA	0
1994	NA	NA	NA	NA	NA	NA	NA	0
1995	NA	NA	NA	NA	NA	NA	NA	0
1996	NA	NA	NA	NA	NA	NA	NA	0
1997	NA	NA	NA	NA	NA	NA	NA	0
1998	0	0.83	0	0	0	0	0.17	6
1999	NA	NA	NA	NA	NA	NA	NA	0
2000	NA	NA	NA	NA	NA	NA	NA	0
2001	NA	NA	NA	NA	NA	NA	NA	0
2002	0	0	0	0	1	0	0	1
2003	0.37	0.39	0.22	0.02	0	0	0.01	93
2004	NA	NA	NA	NA	NA	NA	NA	0
2005	0.14	0.44	0.3	0.05	0	0	0.07	152
2006	0.25	0.12	0.62	0	0	0	0	8
2007	NA	NA	NA	NA	NA	NA	NA	0
2008	0	0	1	0	0	0	0	5
2009	0.14	0.79	0	0	0	0.07	0	14
2010	0.15	0.69	0.15	0	0	0	0	13
ALL	0.21	0.44	0.27	0.03	0	0	0.04	292

Females

Year	p_F1	p_F2	p_F3	p_F4	p_F5	p_F6	p_F7	n_allF
1992	NA	NA	NA	NA	NA	NA	NA	0
1993	NA	NA	NA	NA	NA	NA	NA	0
1994	NA	NA	NA	NA	NA	NA	NA	0
1995	NA	NA	NA	NA	NA	NA	NA	0
1996	NA	NA	NA	NA	NA	NA	NA	0
1997	NA	NA	NA	NA	NA	NA	NA	0
1998	0.1	0.3	0	0	0	0	0.6	10
1999	NA	NA	NA	NA	NA	NA	NA	0
2000	NA	NA	NA	NA	NA	NA	NA	0
2001	NA	NA	NA	NA	NA	NA	NA	0
2002	0	0.2	0	0	0.6	0	0.2	5
2003	0.61	0.27	0	0.05	0.06	0	0	62
2004	NA	NA	NA	NA	NA	NA	NA	0
2005	0.22	0.66	0	0.09	0.02	0	0.02	129
2006	0.14	0.86	0	0	0	0	0	14
2007	NA	NA	NA	NA	NA	NA	NA	0
2008	0	0	0	1	0	0	0	8
2009	0.62	0.38	0	0	0	0	0	16
2010	0.06	0.94	0	0	0	0	0	16
ALL	0.31	0.53	0	0.08	0.03	0	0.03	260

Coded as MIQ

Number of surveys caught 1992–2010 (out of 19):	18
Total catch weight (kg):	2 264.5
Number measured	41
Length range (mean) (cm, ML)	8–42 (26.6)
Number weighed	33

Coded as MRQ

Number of surveys caught 1992–2010 (out of 19):	10
Total catch weight (kg):	111.7
Number measured	13
Length range (mean) (cm, ML)	9–22 (14.1)
Number weighed	2

Coded as RSQ

Number of surveys caught 1992–2010 (out of 19):	13
Total catch weight (kg):	292.7
Number measured	3

Coded as SQX

Number of surveys caught 1992–2010 (out of 19):	14
Total catch weight (kg):	17.5

Coded as TSQ

Number of surveys caught 1992–2010 (out of 19):	14
Total catch weight (kg):	593.5
Number measured	71
Length range (mean) (cm, ML)	18–49 (27.7)
Number weighed	55

Coded as VSQ

Number of surveys caught 1992–2010 (out of 19):	18
Total catch weight (kg):	35.4

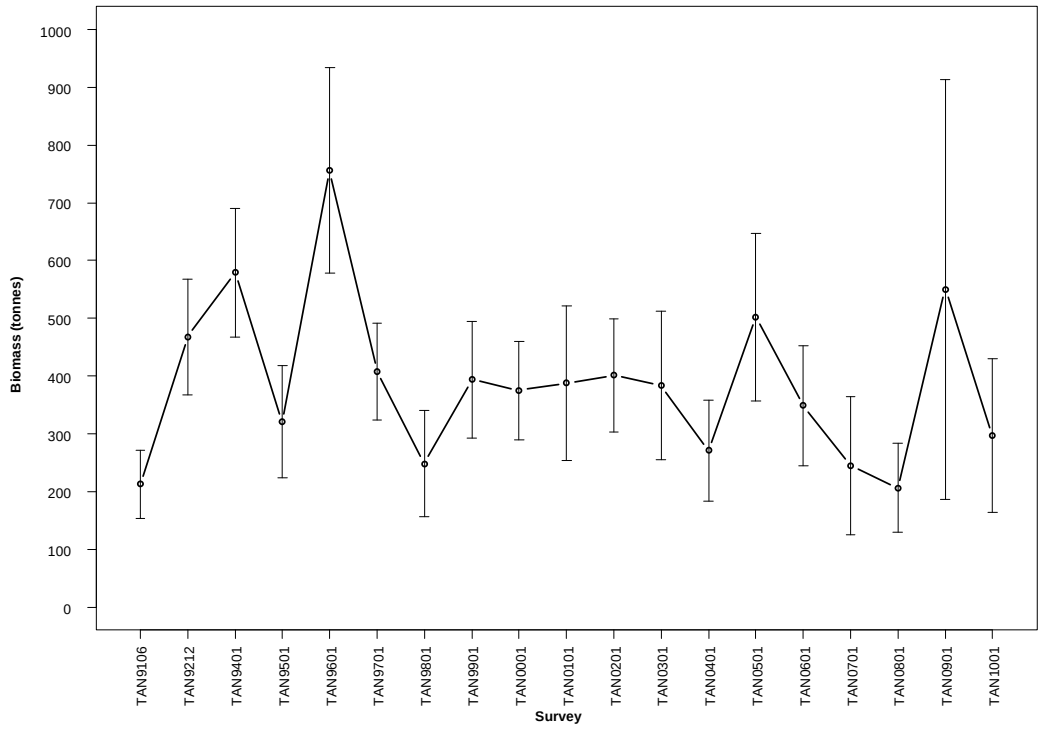
Coded as WSQ

Number of surveys caught 1992–2010 (out of 19):	4
Total catch weight (kg):	508.9

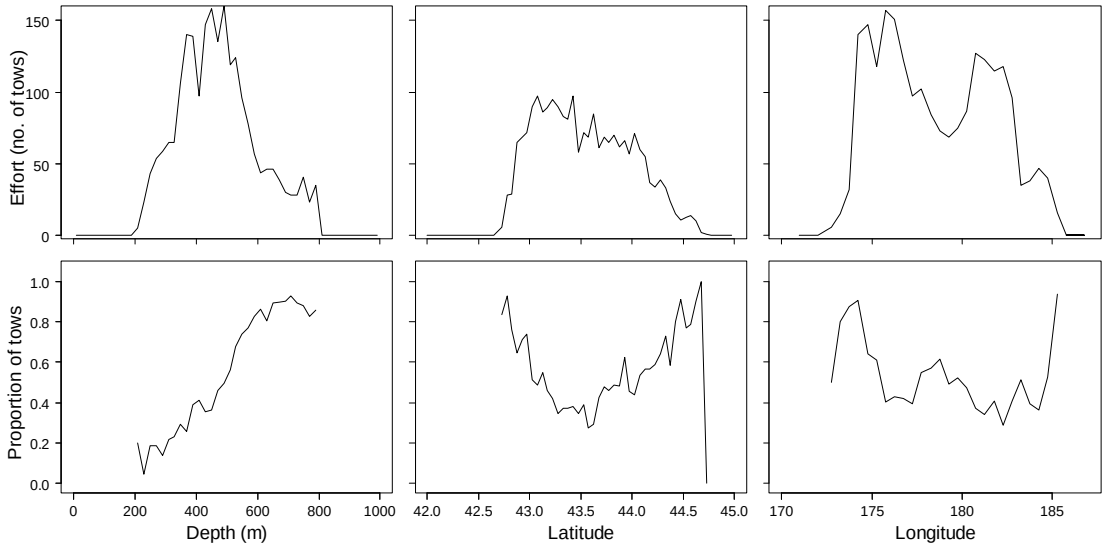
The core survey area and depth range **is not** appropriate for this group. It is found **deeper than 800 m**. Biomass of this group is **very well** estimated in the core survey area. Biomass **shows no clear trend** since the start of the time series.

Relative biomass estimates

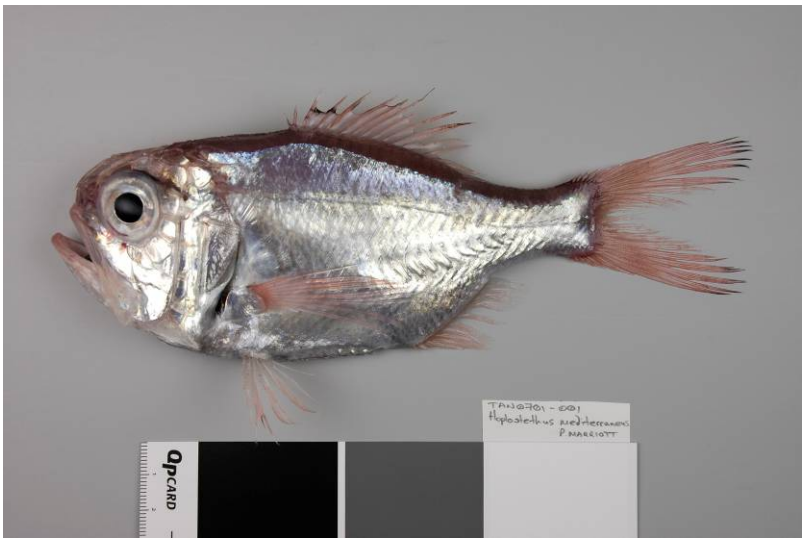
Year	Biomass (t)	cv (%)
1992	213	14
1993	468	11
1994	579	10
1995	321	15
1996	756	12
1997	408	10
1998	248	19
1999	394	13
2000	375	12
2001	388	18
2002	401	13
2003	384	17
2004	271	17
2005	502	15
2006	349	15
2007	245	25
2008	206	19
2009	550	34
2010	297	23



Distribution



Silver roughy (*Hoplostethus mediterraneus*) SRH

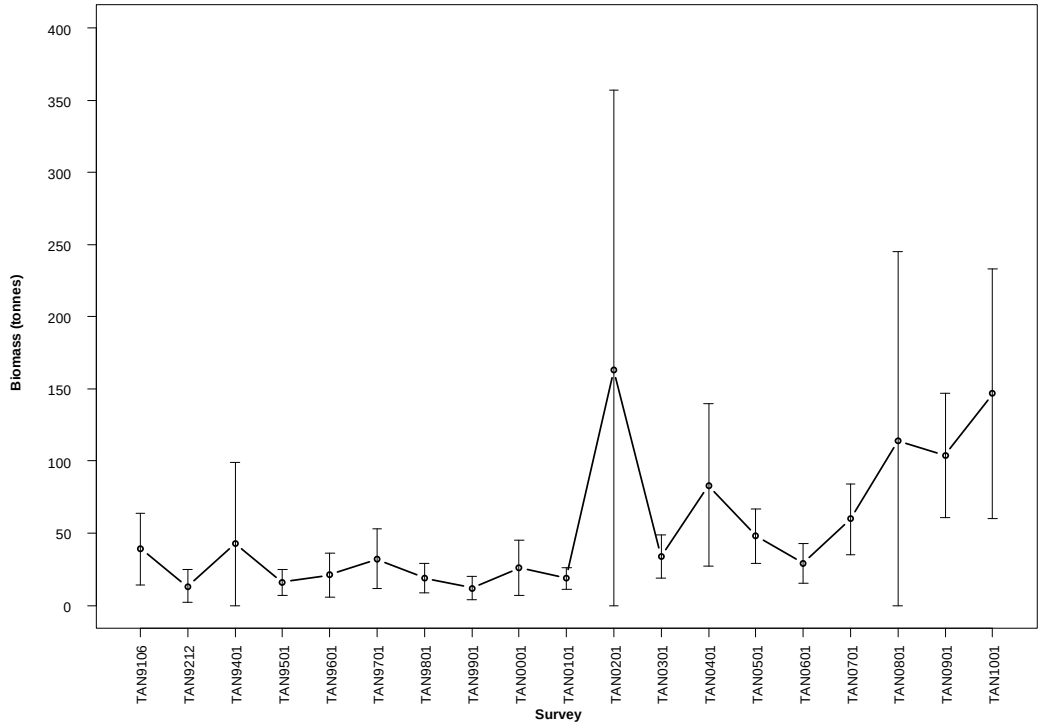


Number of surveys caught 1992–2010 (out of 19):	19
Total catch weight (kg):	602.7
Number measured	288
Length range (mean) (cm, SL)	9–18 (13.2)
Number weighed	135
Length-weight parameters a, b (r^2)	–

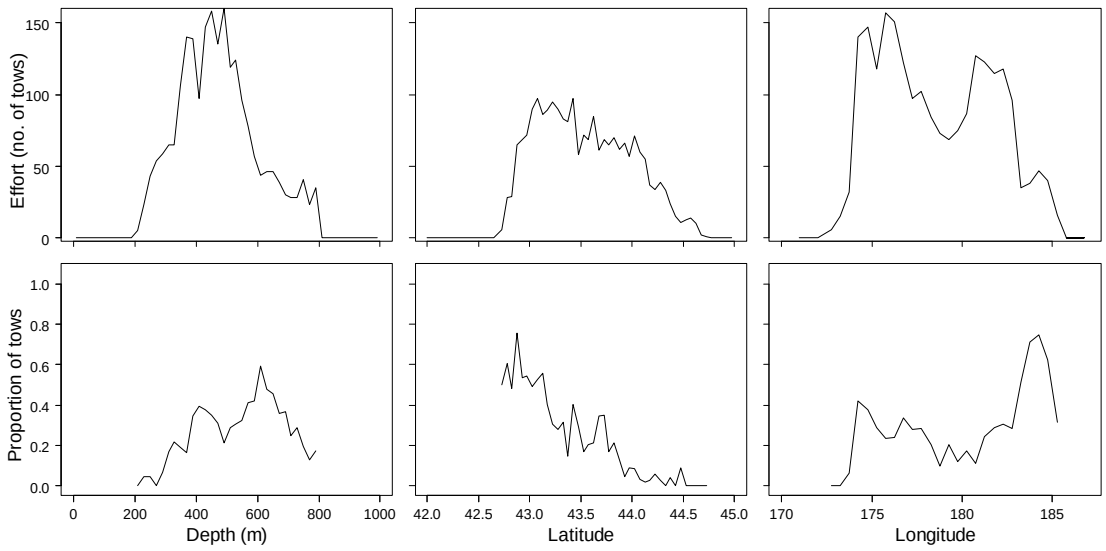
The core survey area and depth range **is** appropriate for this species. Biomass of this species is **moderately well** estimated in the core survey area. Biomass has **increased** since the start of the time series. Catch rates are highest in the **north.**

Relative biomass estimates

Year	Biomass (t)	cv (%)
1992	39	32
1993	13	42
1994	43	65
1995	16	27
1996	21	35
1997	32	32
1998	19	28
1999	12	33
2000	26	37
2001	19	20
2002	163	60
2003	34	22
2004	83	34
2005	48	20
2006	29	24
2007	60	21
2008	114	58
2009	104	21
2010	147	30



Distribution

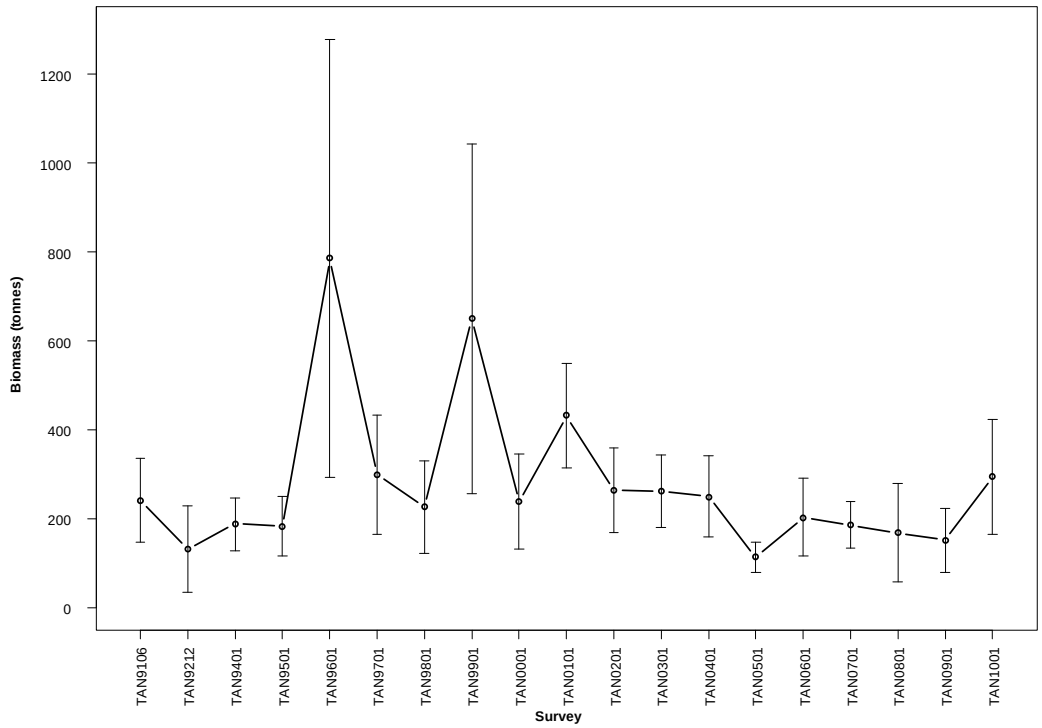


Number of surveys caught 1992–2010 (out of 19):	19
Total catch weight (kg):	2 655.5
Number measured	5 147
Length range (mean) (cm, FL)	13–39 (23.8)
Number weighed	368
Length-weight parameters a, b (r^2)	0.006316, 3.039797 (81.6)

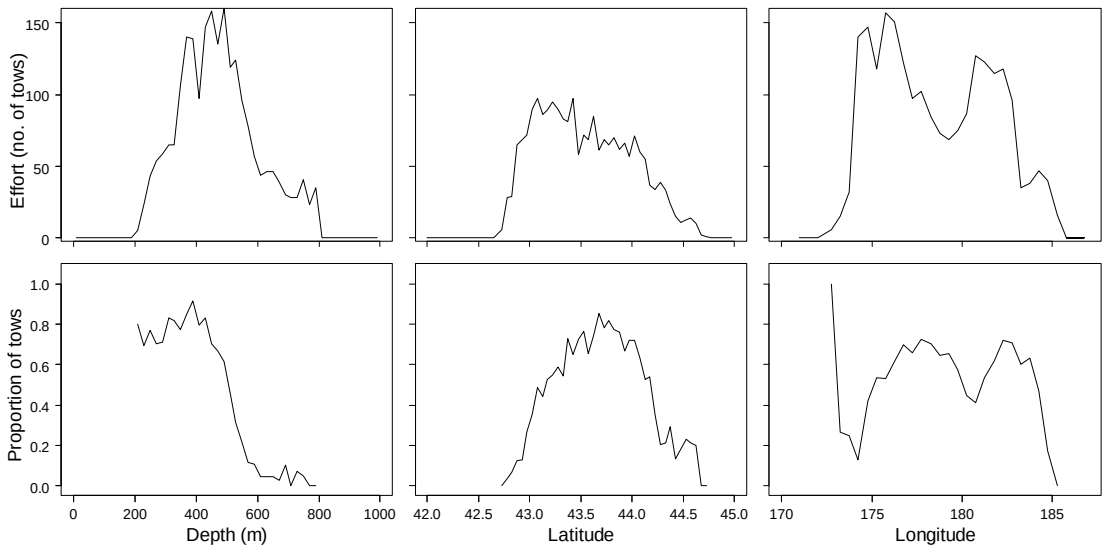
The core survey area and depth range **is not** appropriate for this species. It is found **shallower than 200 m**. Biomass of this species is **well** estimated in the core survey area. Biomass has **increased and then decreased** since the start of the time series. Catch rates are highest in the **west**. Length frequencies are usually **unimodal**. Mean length **shows no clear trend** since the start of the time series.

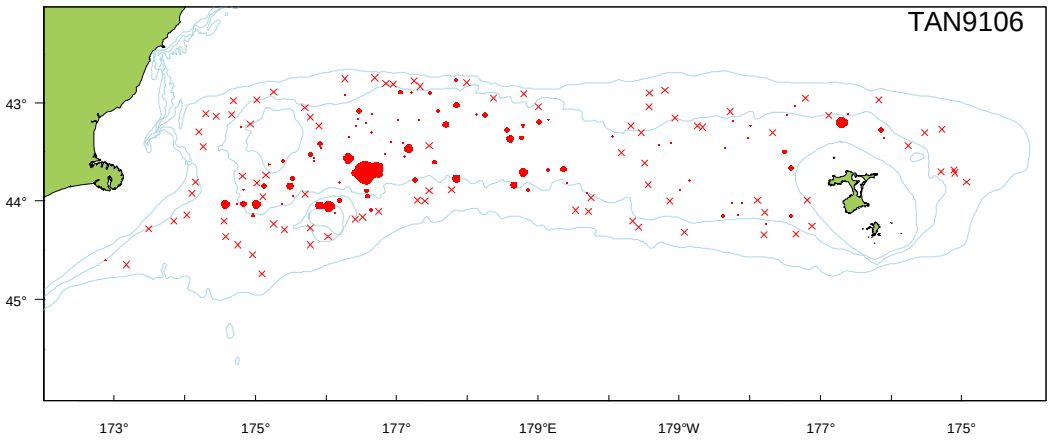
Relative biomass estimates and length summary

Year	Biomass (t)	cv (%)	Length (cm)			No. measured
			Min.	Max.	Mean	
1992	241	19	-	-	-	0
1993	131	37	-	-	-	0
1994	188	16	25	30	27.0	5
1995	182	18	-	-	-	0
1996	786	31	-	-	-	0
1997	299	22	-	-	-	0
1998	226	23	-	-	-	0
1999	650	30	25	28	26.5	6
2000	238	22	27	27	27.0	1
2001	432	14	13	34	24.3	1 280
2002	263	18	17	33	24.2	819
2003	262	16	15	39	23.1	798
2004	249	18	-	-	-	0
2005	113	15	19	29	24.5	196
2006	202	22	22	27	24.4	30
2007	185	14	20	28	23.8	202
2008	168	33	13	28	23.4	109
2009	151	24	17	29	23.1	254
2010	294	22	19	31	23.3	708



Distribution

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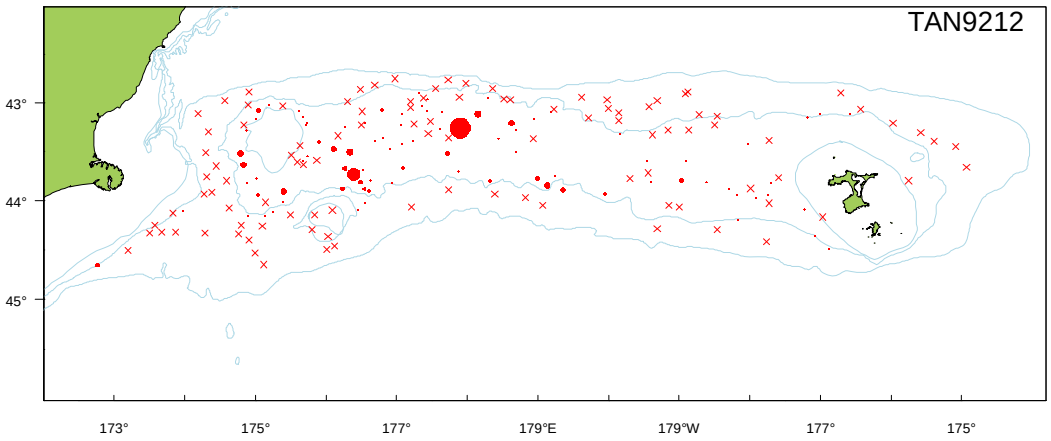
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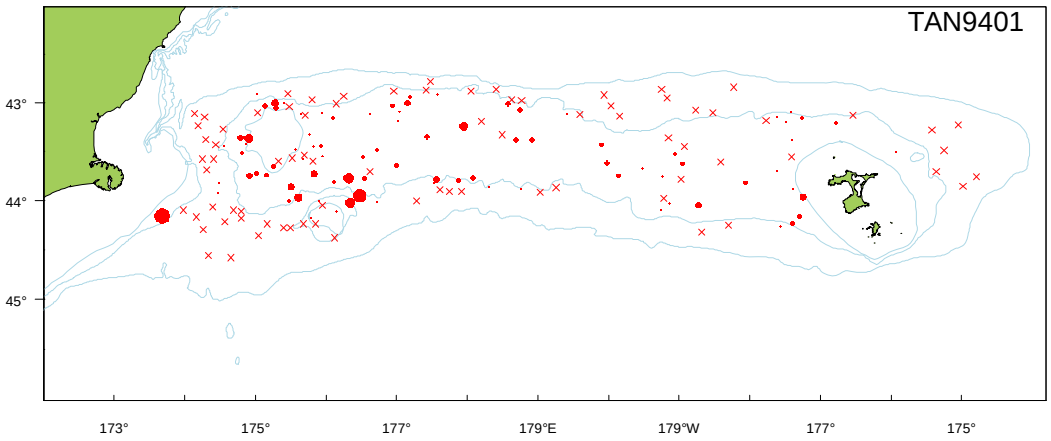
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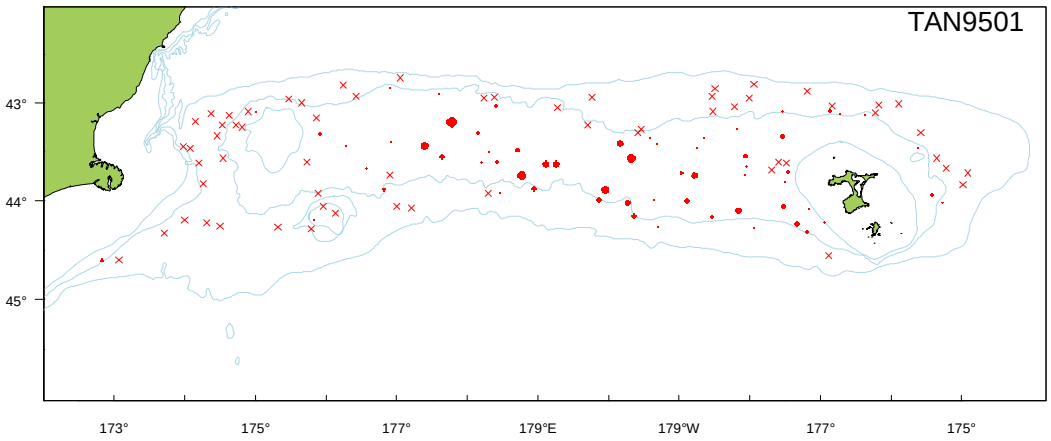
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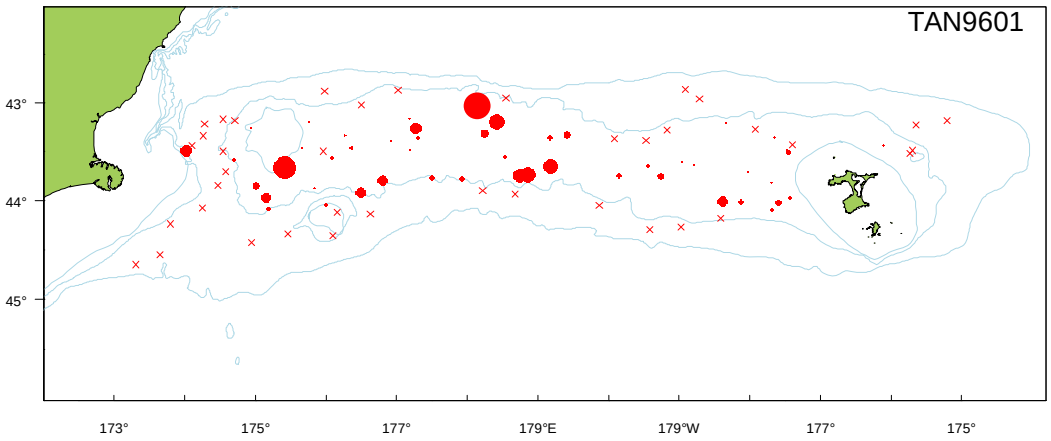
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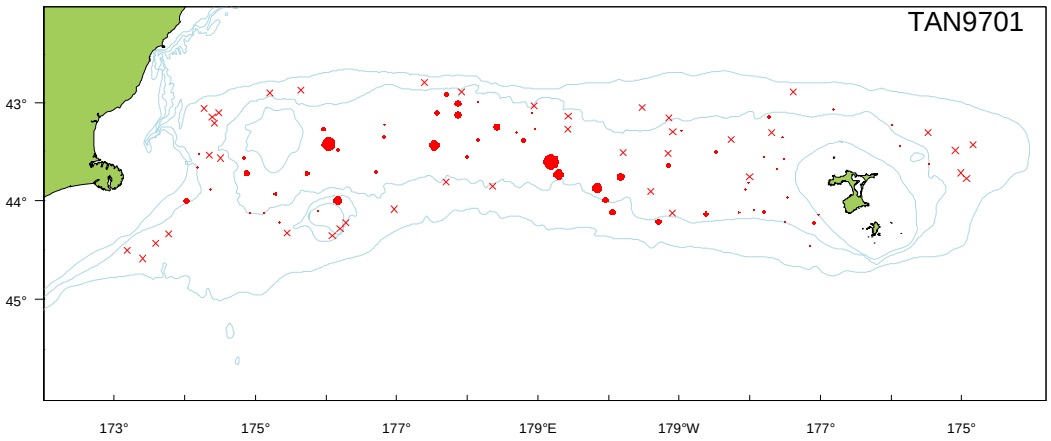
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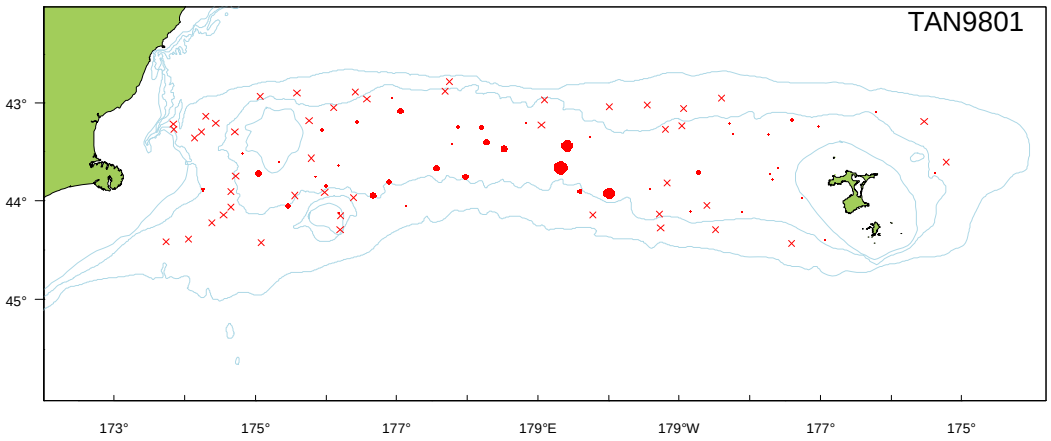
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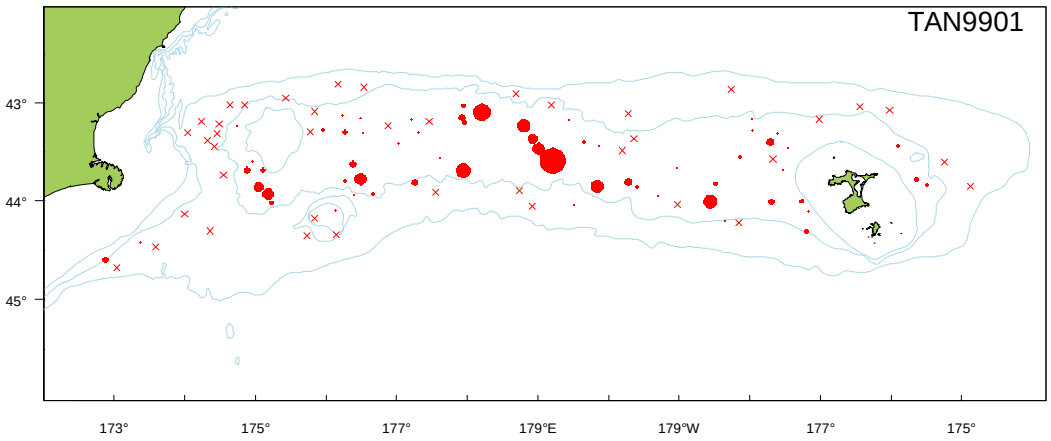
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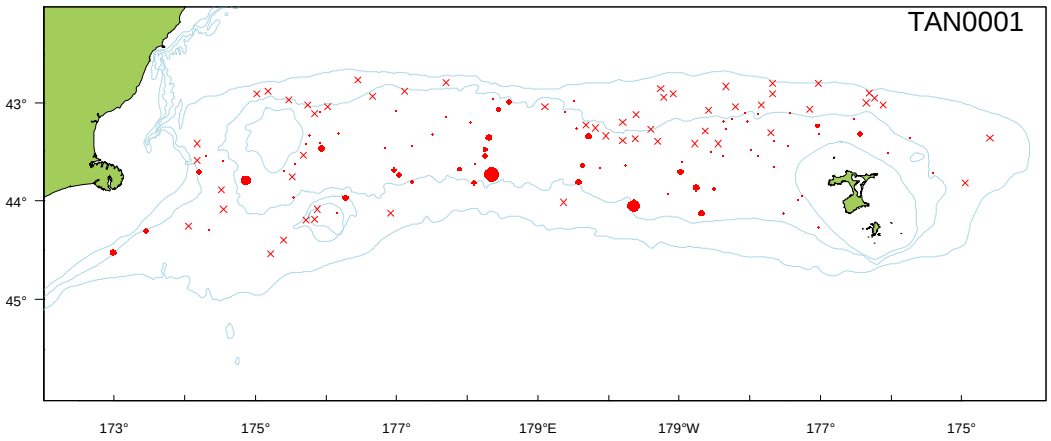
45°
173°
175°
177°
179°E
179°W
177°
175°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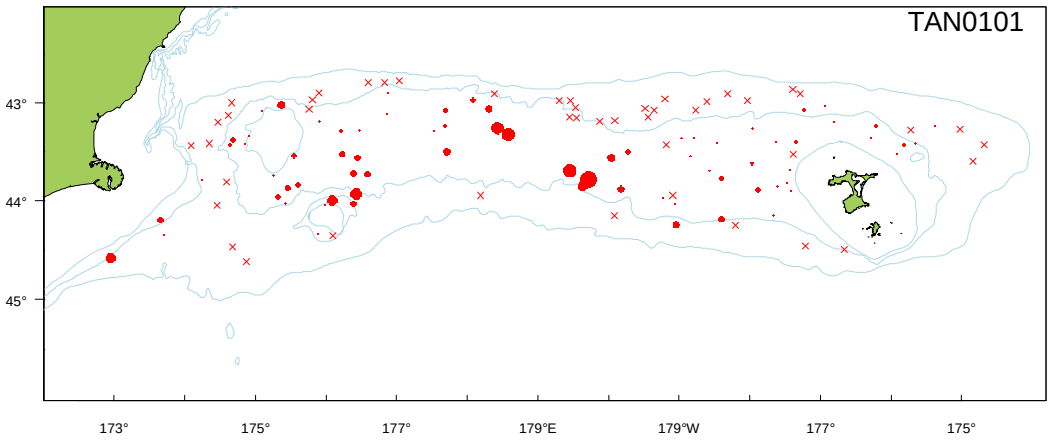
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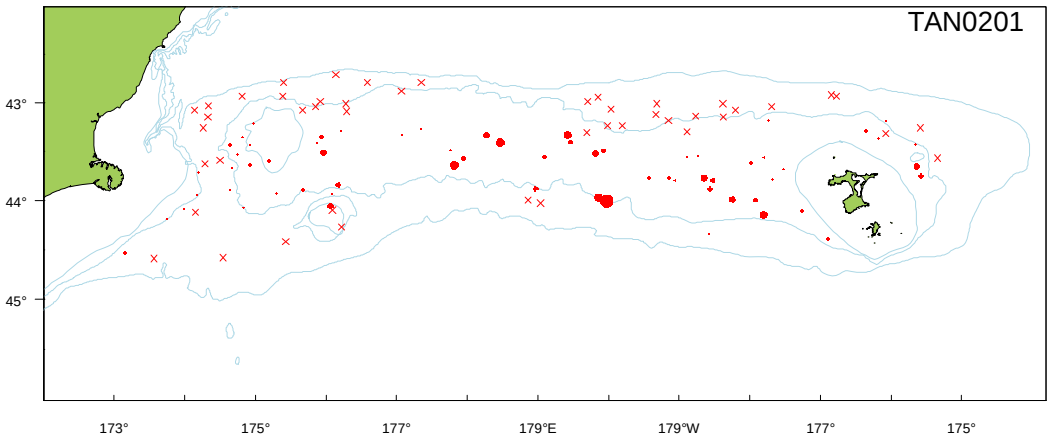
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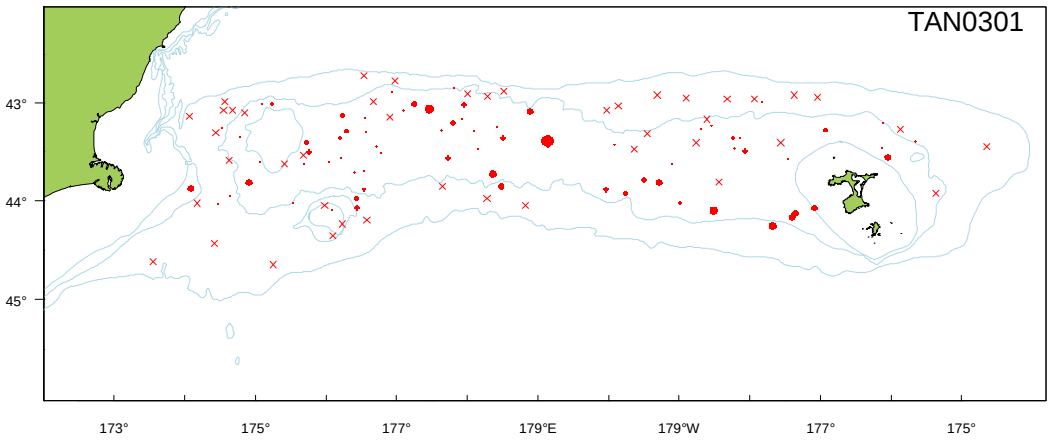
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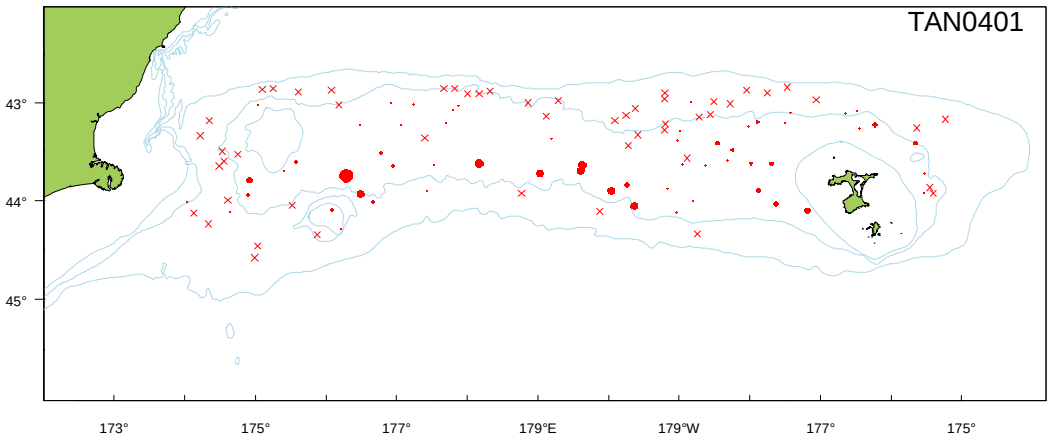
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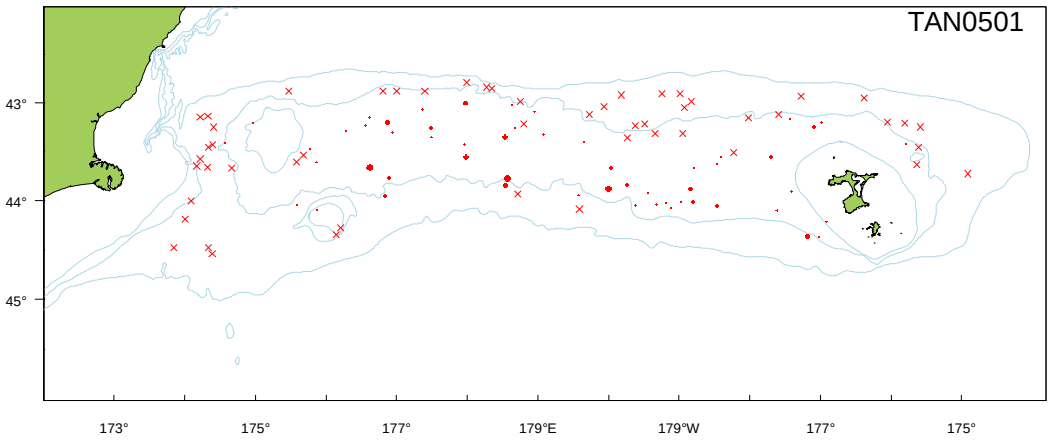
175°


TAN0501
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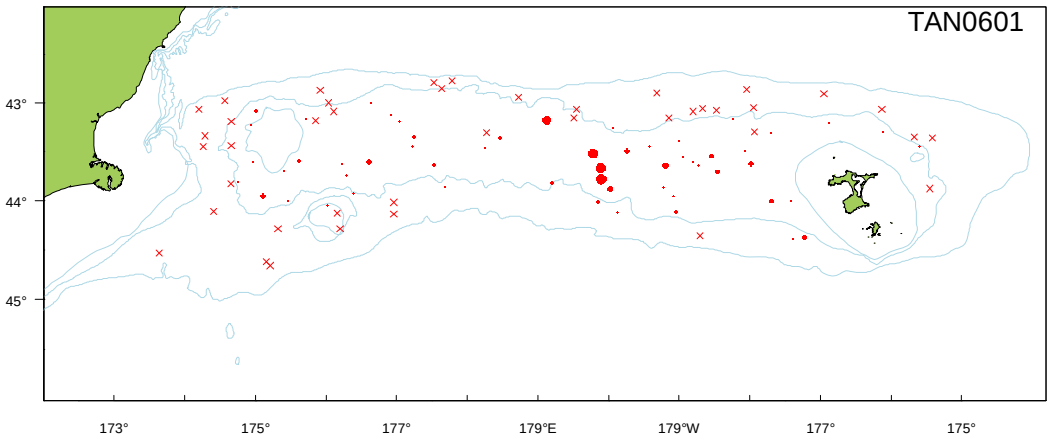
179°E
179°W
177°
175°


TAN0601
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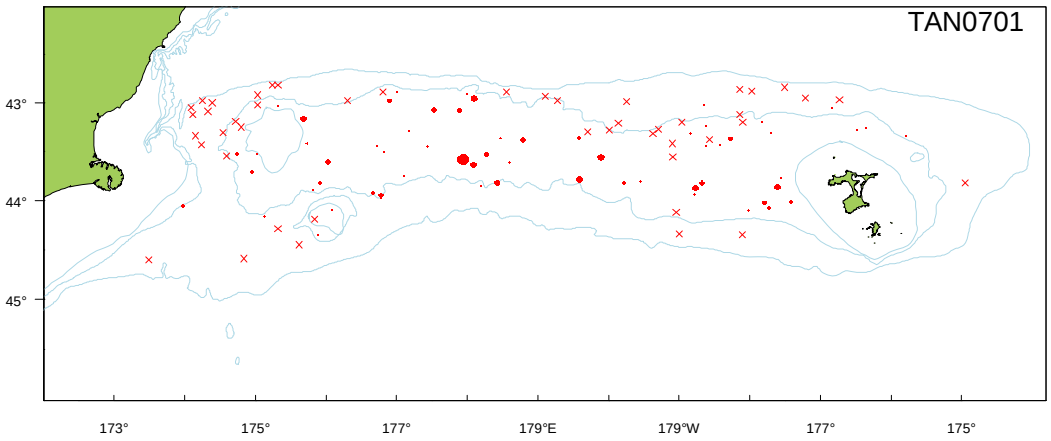
TAN0701
43°
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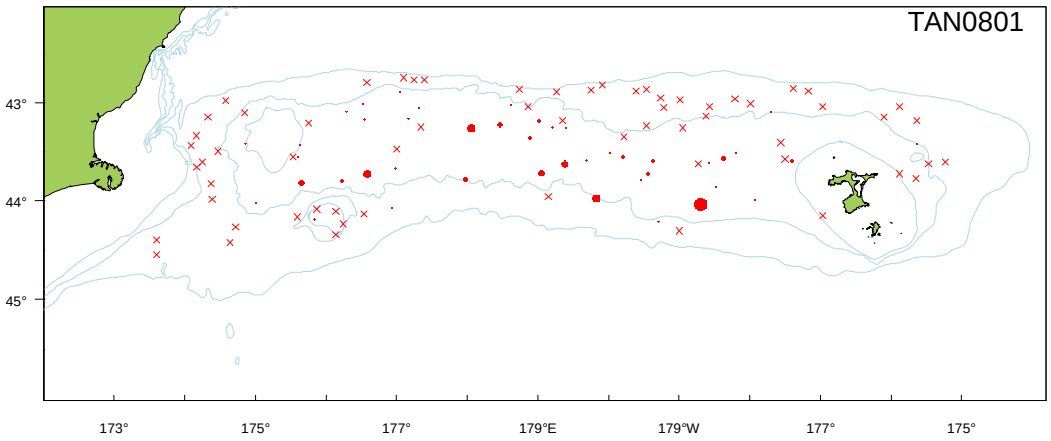
45°
173°
175°
177°
179°E
179°W
177°
175°


TAN0801
43°
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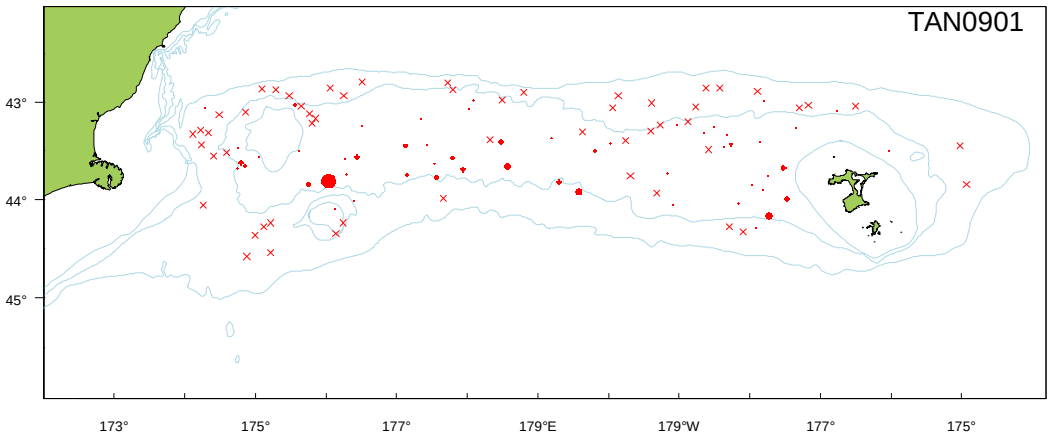
177°
179°E
179°W
177°
175°


TAN0901
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44°
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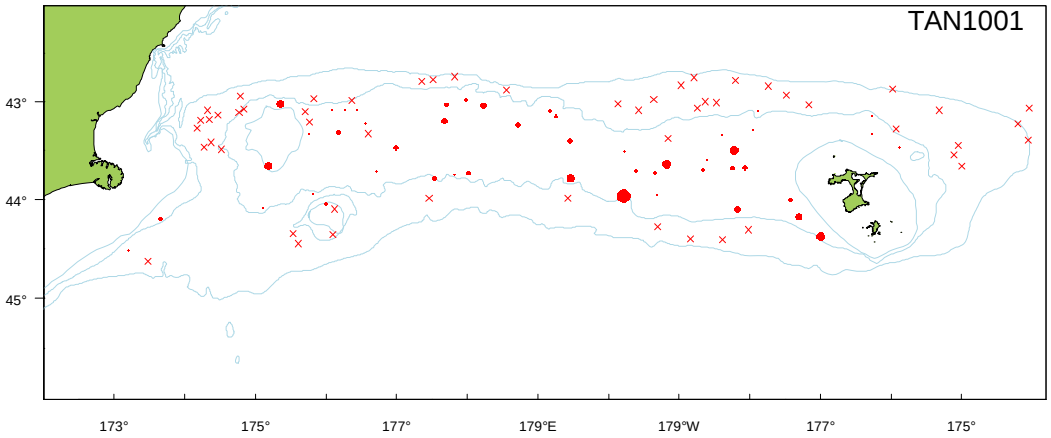
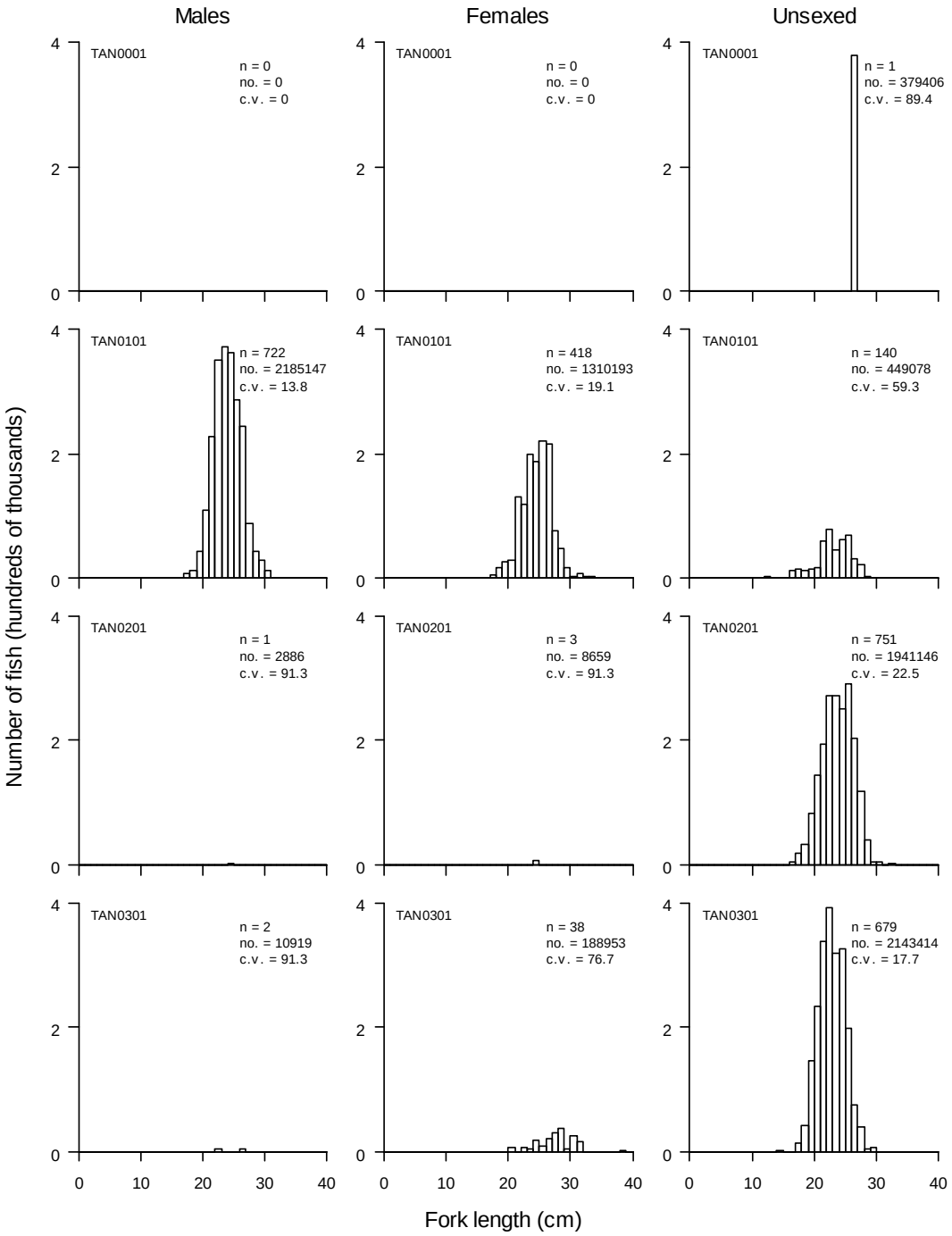
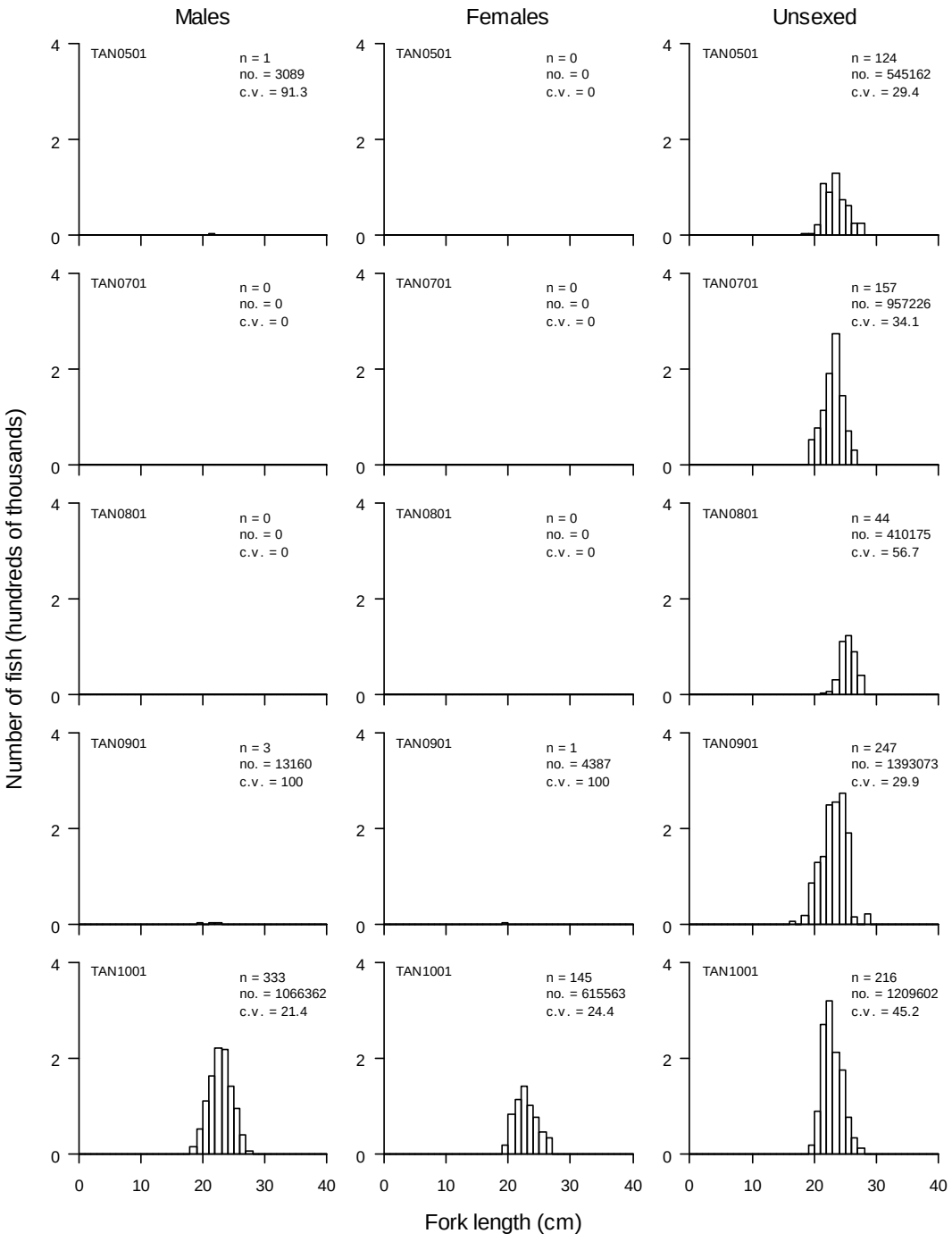
179°W
177°
175°

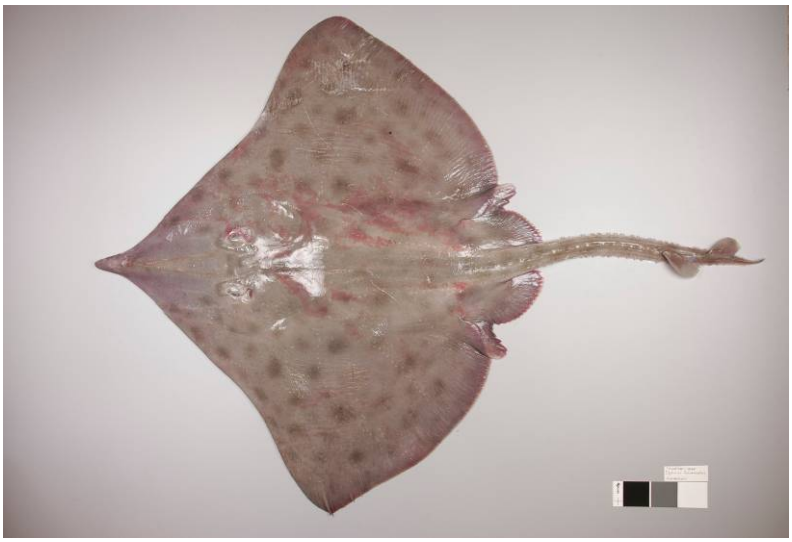

TAN1001
43°
44°
45°
173°
175°
177°
179°E
179°W
177°
175°

Length Frequencies




Males
Females
Unsexed
TAN0501
n = 1
no. = 3089
c.v. = 91.3
TAN0501
n = 0
no. = 0
c.v. = 0
TAN0501
n = 124
no. = 545162
c.v. = 29.4
TAN0701
n = 0
no. = 0
c.v. = 0
TAN0701
n = 0
no. = 0
c.v. = 0
TAN0701
n = 157
no. = 957226
c.v. = 34.1
TAN0801
n = 0
no. = 0
c.v. = 0
TAN0801
n = 0
no. = 0
c.v. = 0
TAN0801
n = 44
no. = 410175
c.v. = 56.7
TAN0901
n = 3
no. = 13160
c.v. = 100
TAN0901
n = 1
no. = 4387
c.v. = 100
TAN0901
n = 247
no. = 1393073
c.v. = 29.9
TAN1001
n = 333
no. = 1066362
c.v. = 21.4
TAN1001
n = 145
no. = 615563
c.v. = 24.4
TAN1001
n = 216
no. = 1209602
c.v. = 45.2
Number of fish (hundreds of thousands)
Fork length (cm)
0
2
4
0
10
20
30
40

Smooth skate (*Dipturus innominatus*) SSK

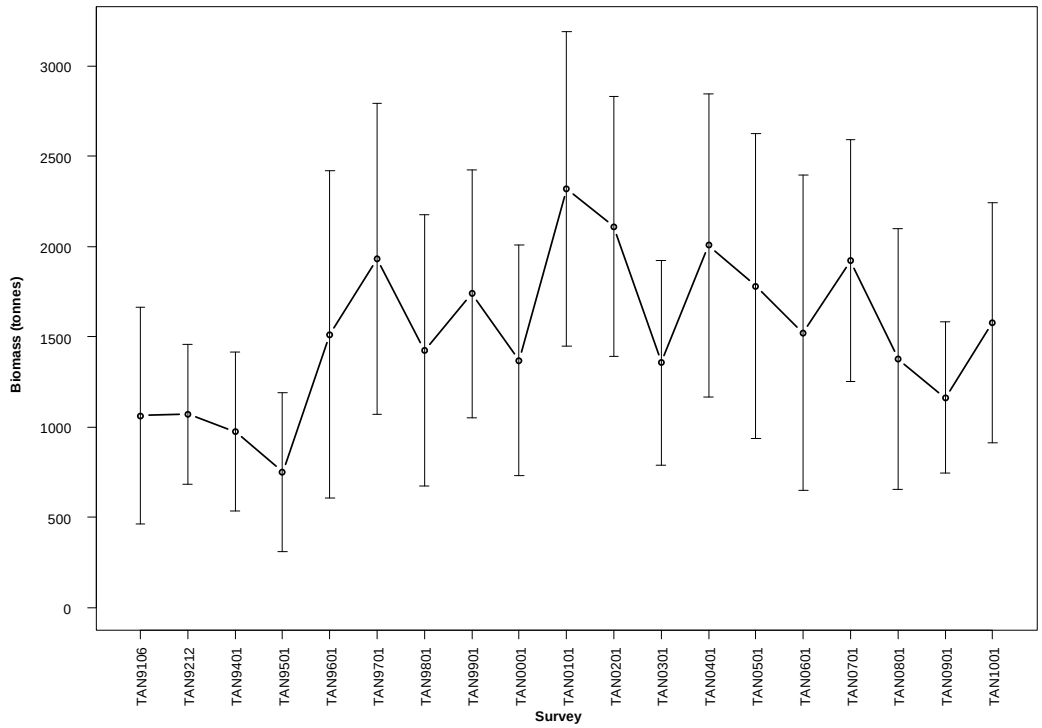


Number of surveys caught 1992–2010 (out of 19):	19
Total catch weight (kg):	17 245.9
Number measured	824
Length range (mean) (cm, PL)	26–158 (86.9)
Number weighed	747
Length-weight parameters a, b (r^2)	0.021459, 2.97257 (98.25)

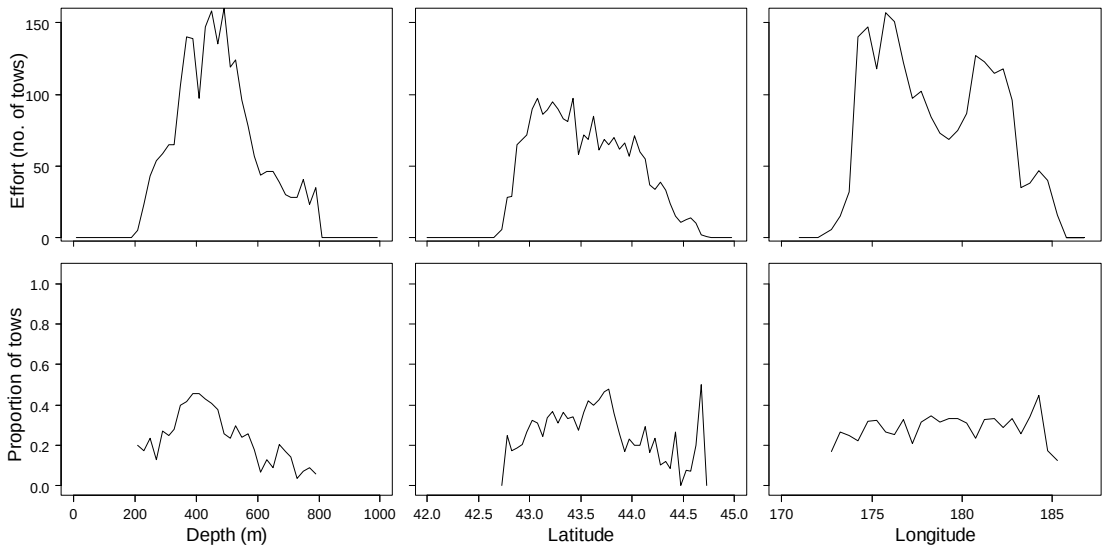
The core survey area and depth range **is** appropriate for this species. Biomass of this species is **well** estimated in the core survey area. Biomass has **increased** since the start of the time series. Length frequencies are **broad**. Mean length **shows no clear trend** since the start of the time series. Gonad stage data indicate that most fish are **immature**.

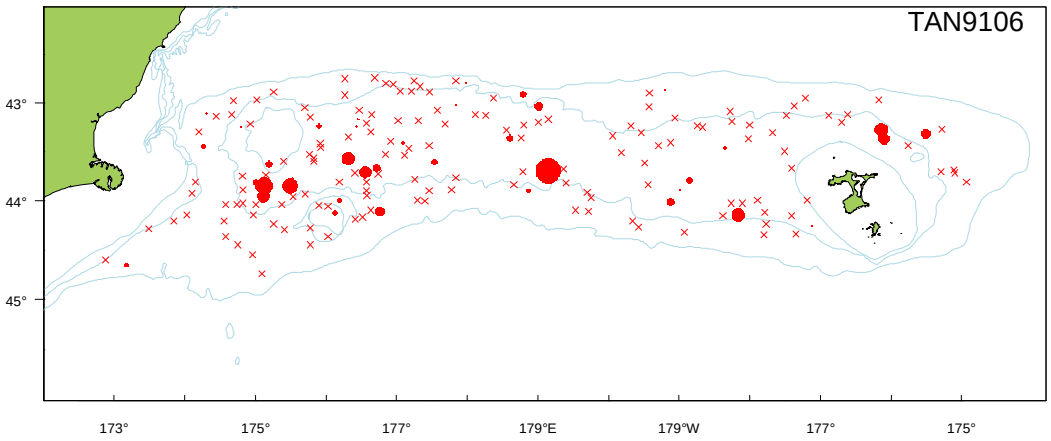
Relative biomass estimates and length summary

			Length (cm)			No.
Year	**Biomass (t)**	**cv (%)**	**Min.**	**Max.**	**Mean**	**measured**
1992	1 062	28	-	-	-	0
1993	1 072	18	-	-	-	0
1994	974	23	-	-	-	0
1995	751	29	-	-	-	0
1996	1 511	30	57	158	91.7	29
1997	1 932	22	61	155	94.1	54
1998	1 425	26	44	138	94.0	28
1999	1 738	20	37	141	88.3	38
2000	1 369	23	39	145	86.3	50
2001	2 321	19	33	134	84.6	89
2002	2 111	17	42	140	86.2	82
2003	1 355	21	42	154	79.6	64
2004	2 006	21	47	149	94.5	50
2005	1 780	24	41	152	90.4	47
2006	1 521	29	29	134	91.1	40
2007	1 922	17	51	141	94.0	55
2008	1 376	26	41	134	84.3	40
2009	1 162	18	26	133	75.9	68
2010	1 576	21	45	130	82.2	49



Distribution




TAN9106
43°
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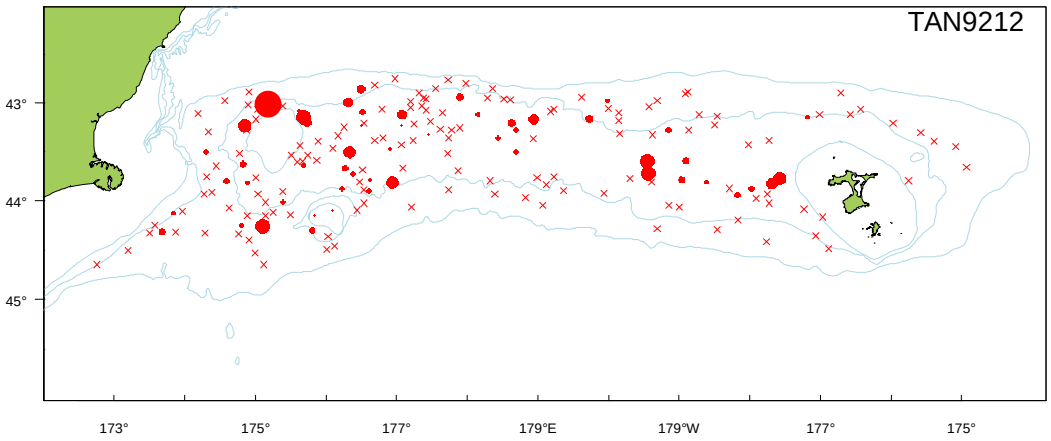
45°
173°
175°
177°
179°E
179°W
177°
175°


TAN9212
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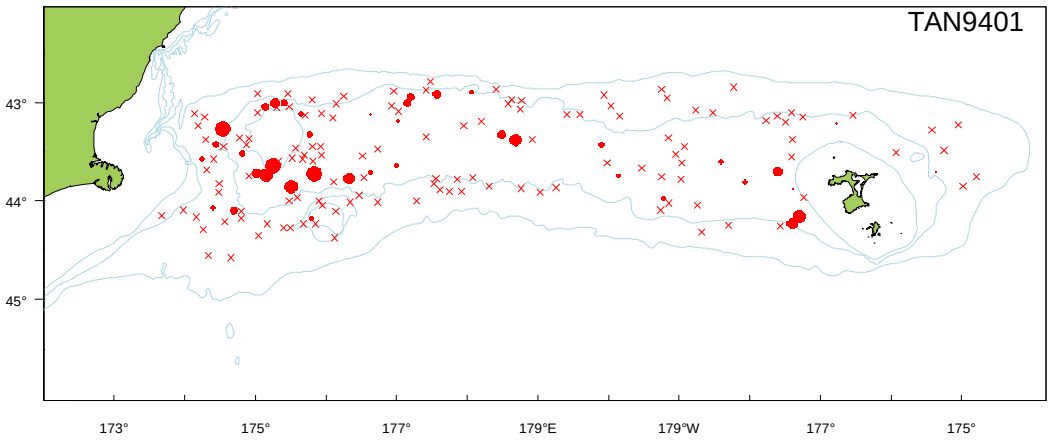
175°
177°
179°E
179°W
177°
175°


TAN9401
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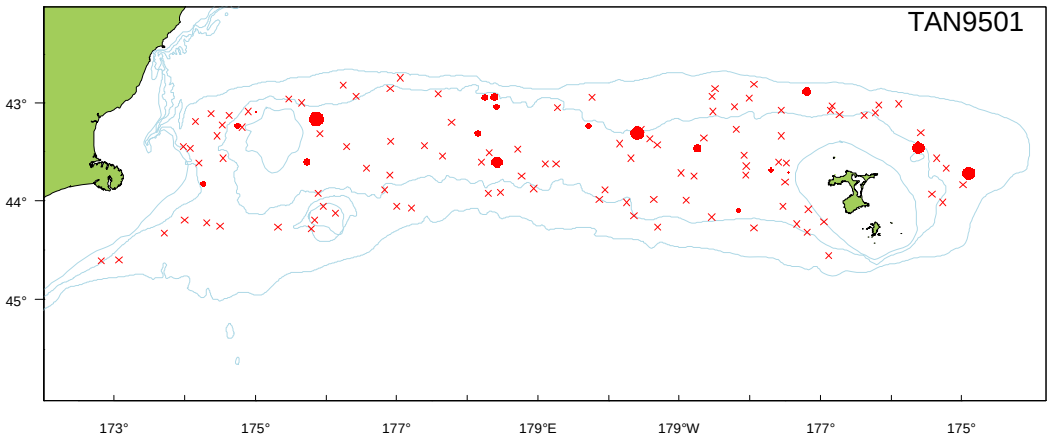
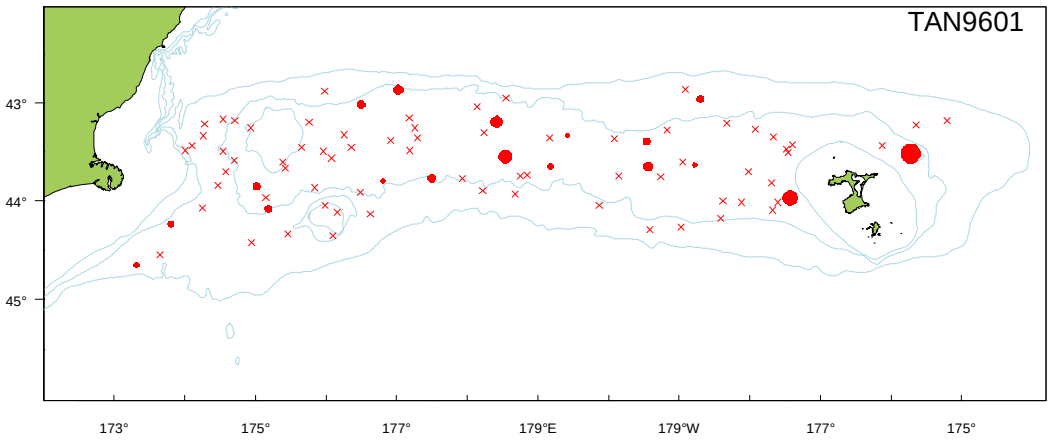
45°
173°
175°
177°
179°E
179°W
177°
175°


TAN9501
43°
44°
45°
173°
175°
177°
179°E
179°W
177°
175°


TAN9601
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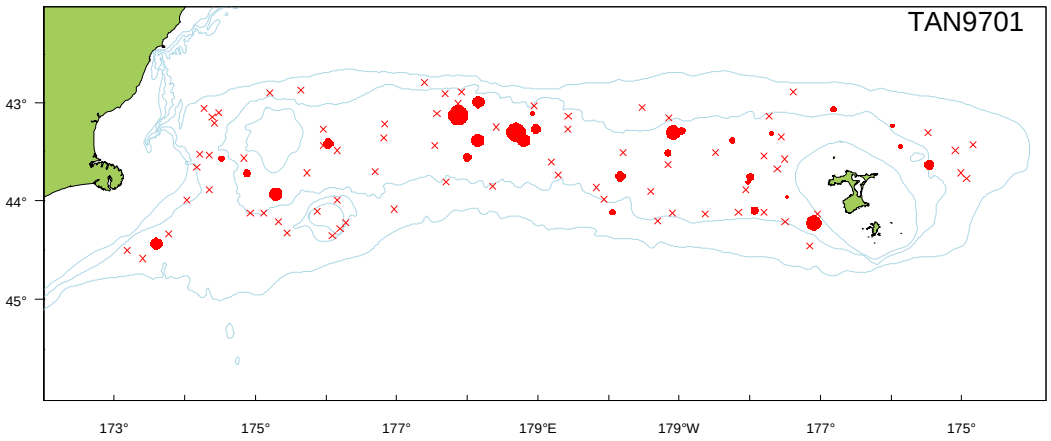
45°
173°
175°
177°
179°E
179°W
177°
175°


TAN9701
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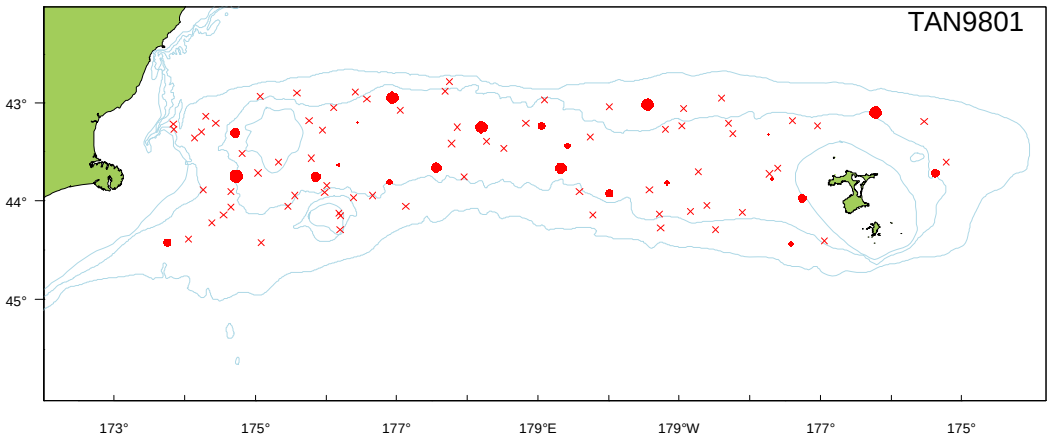
173°
175°
177°
179°E
179°W
177°
175°


TAN9801
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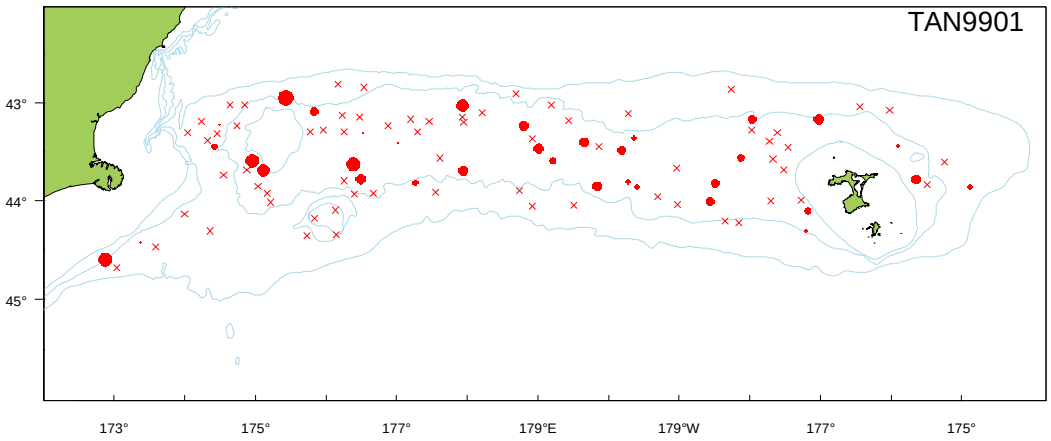
177°
179°E
179°W
177°
175°


TAN9901
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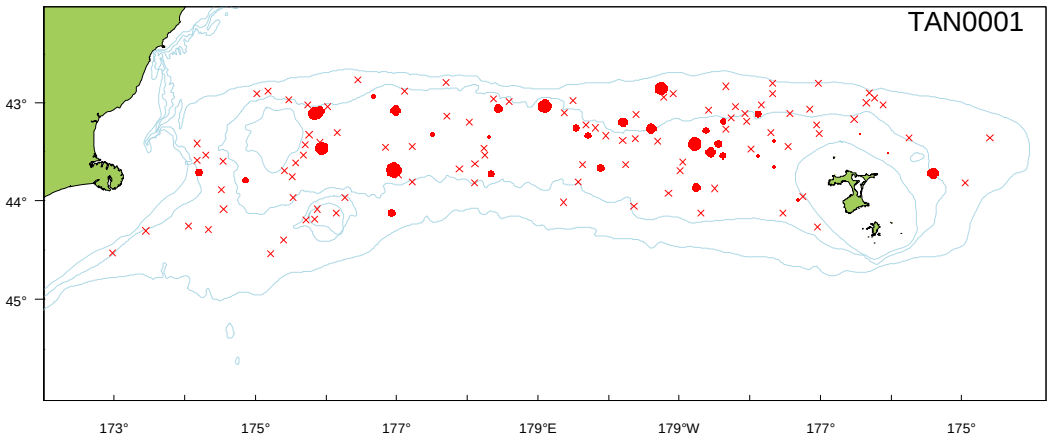
179°W
177°
175°


TAN0001
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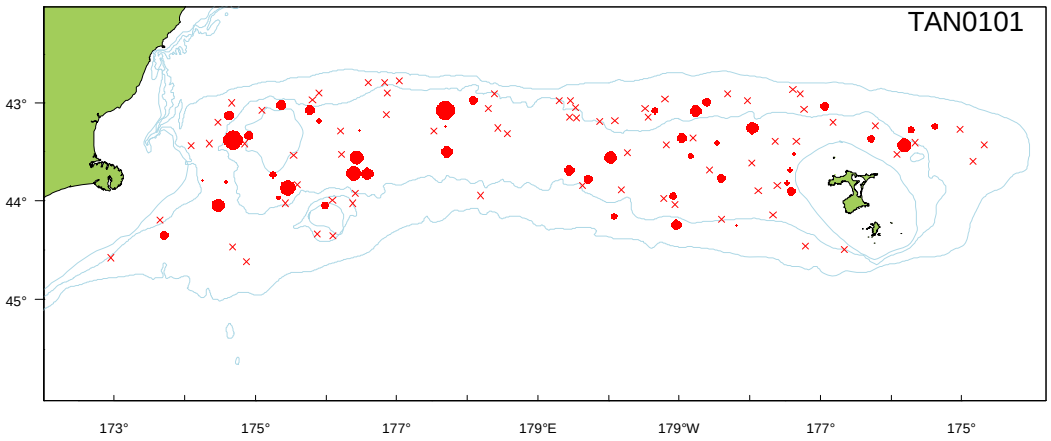
179°W
177°
175°


TAN0101
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177°
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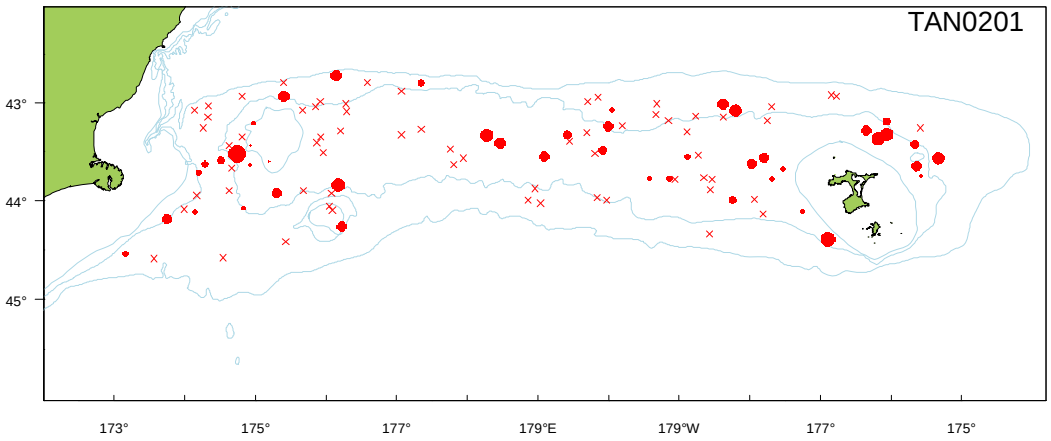
179°W
177°
175°


TAN0201
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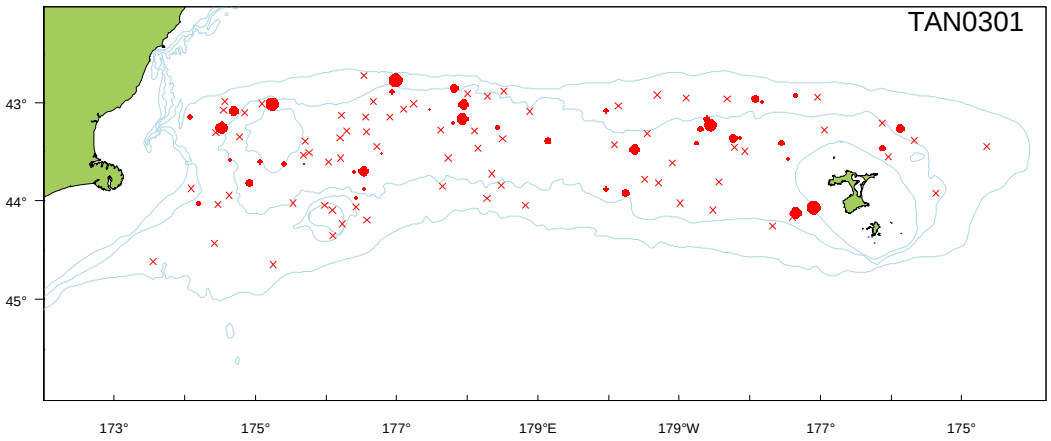
179°W
177°
175°


TAN0301
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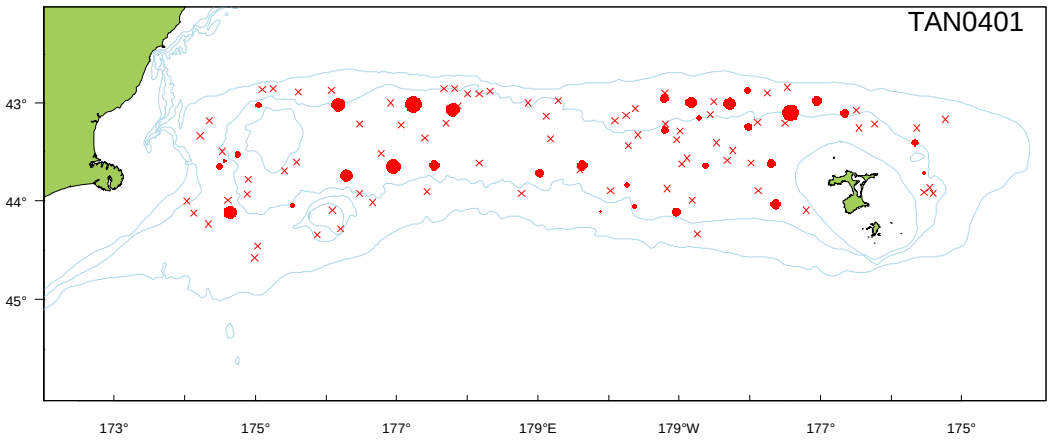
177°
179°E
179°W
177°
175°


TAN0401
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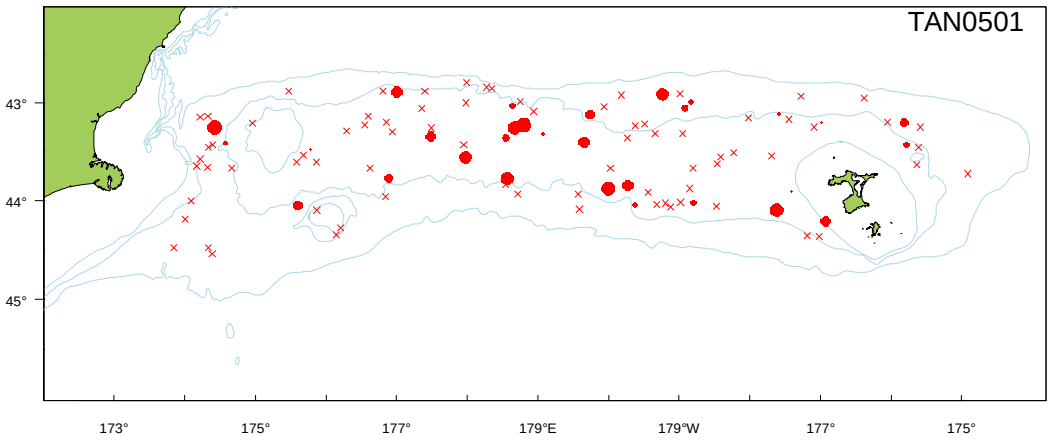
179°W
177°
175°


TAN0501
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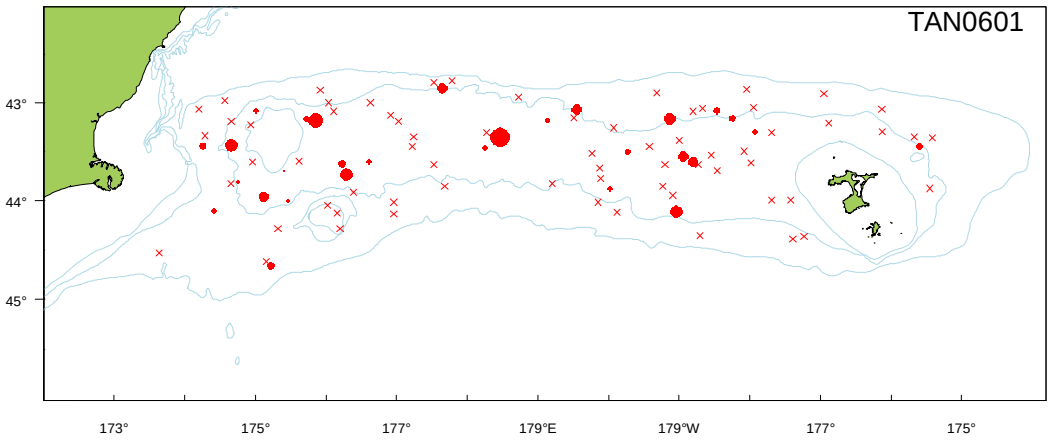
173°
175°
177°
179°E
179°W
177°
175°


TAN0601
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177°
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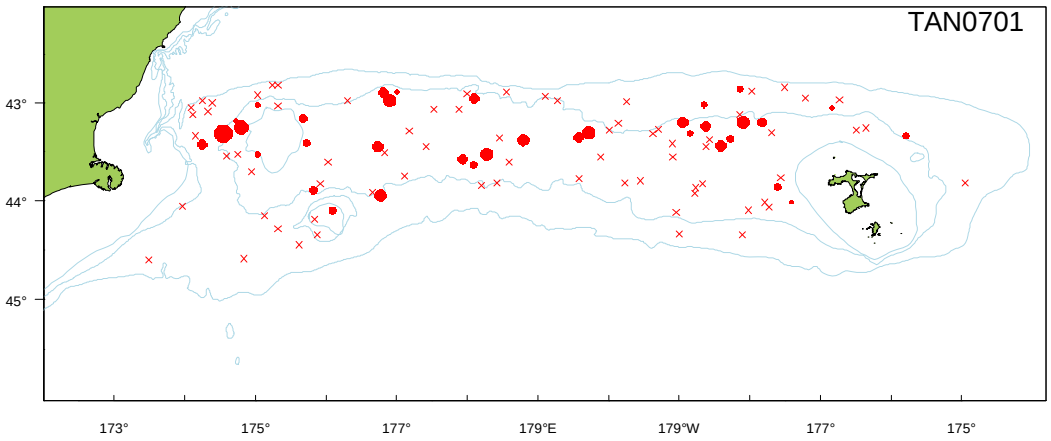
179°W
177°
175°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179°W
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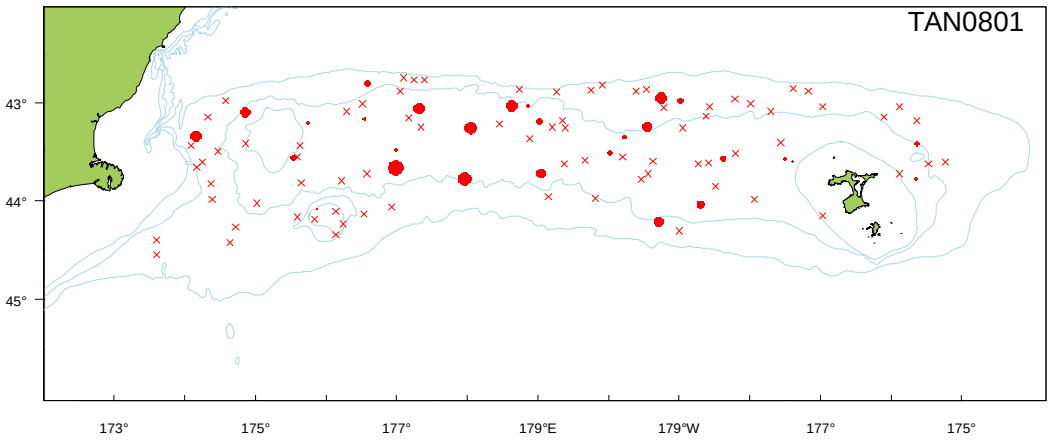
175°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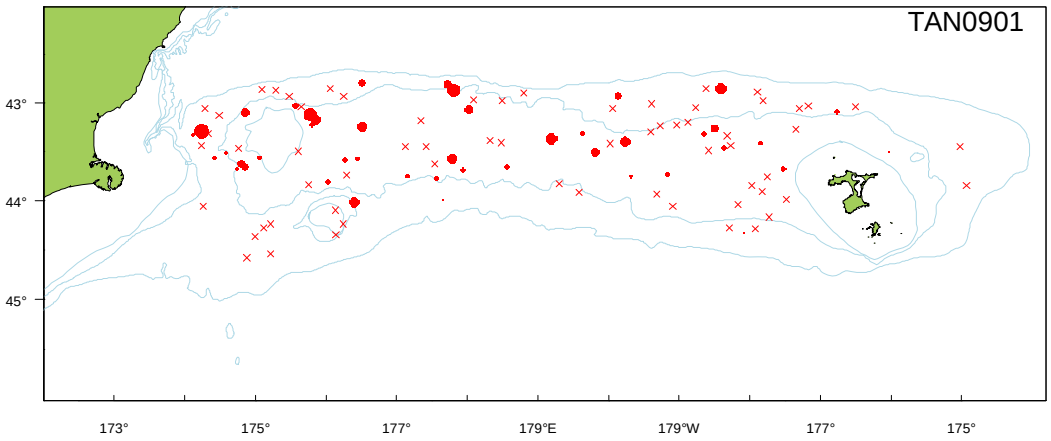
179°W
177°
175°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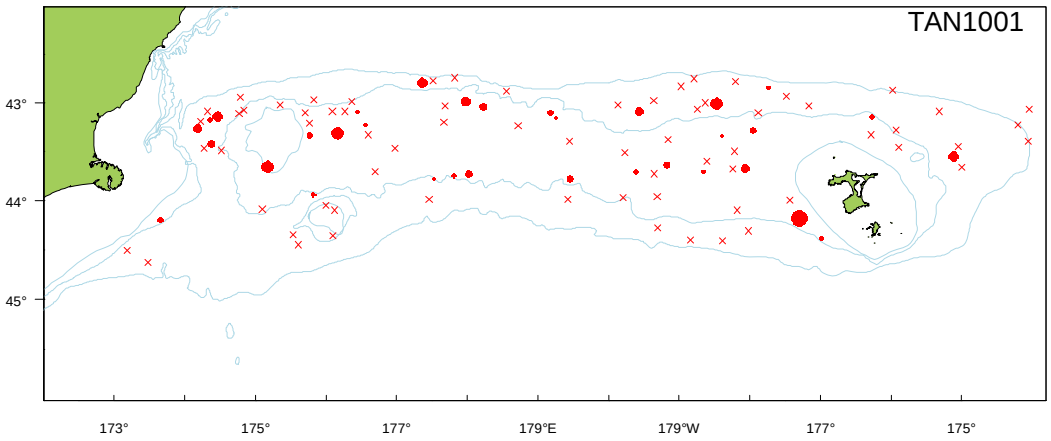
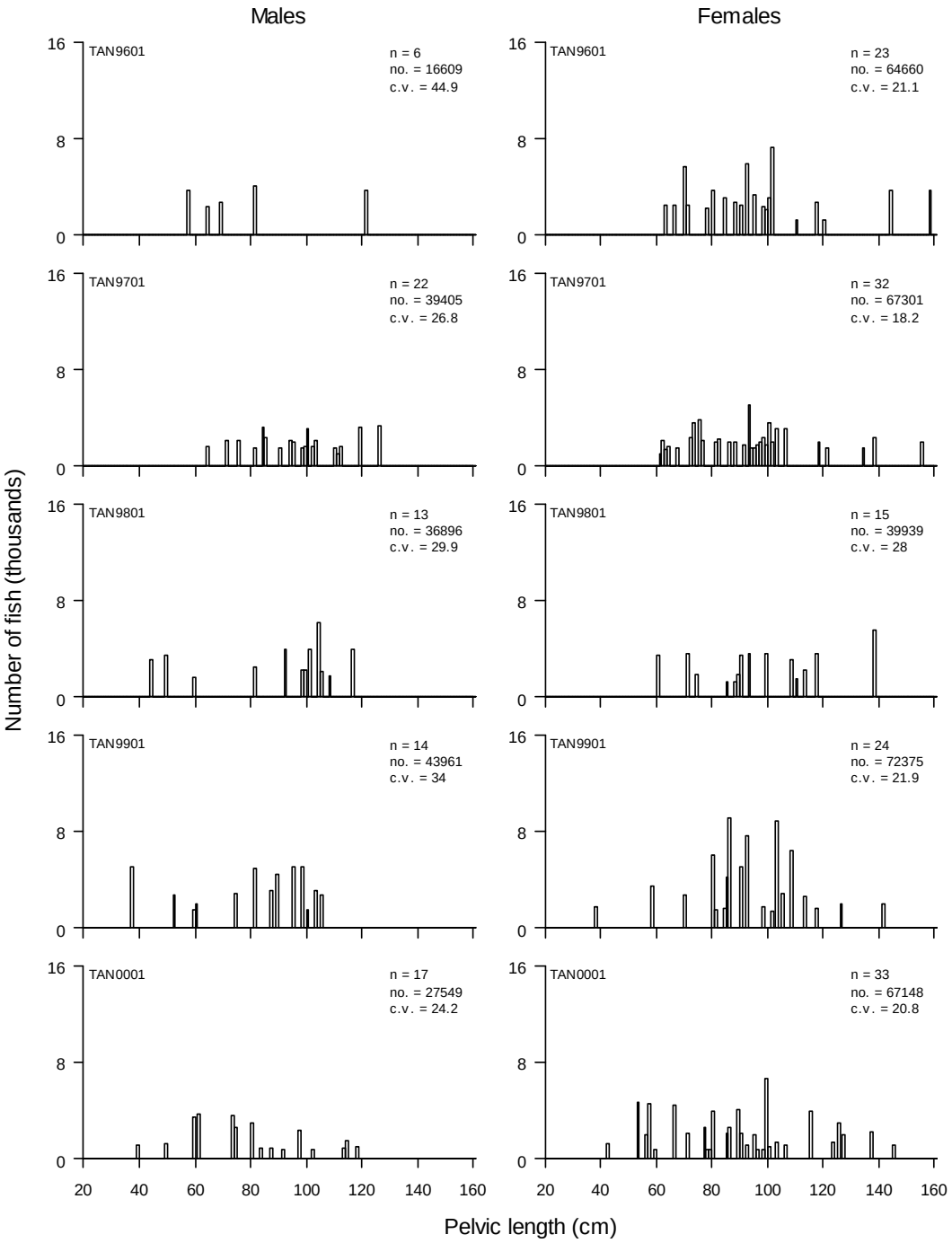
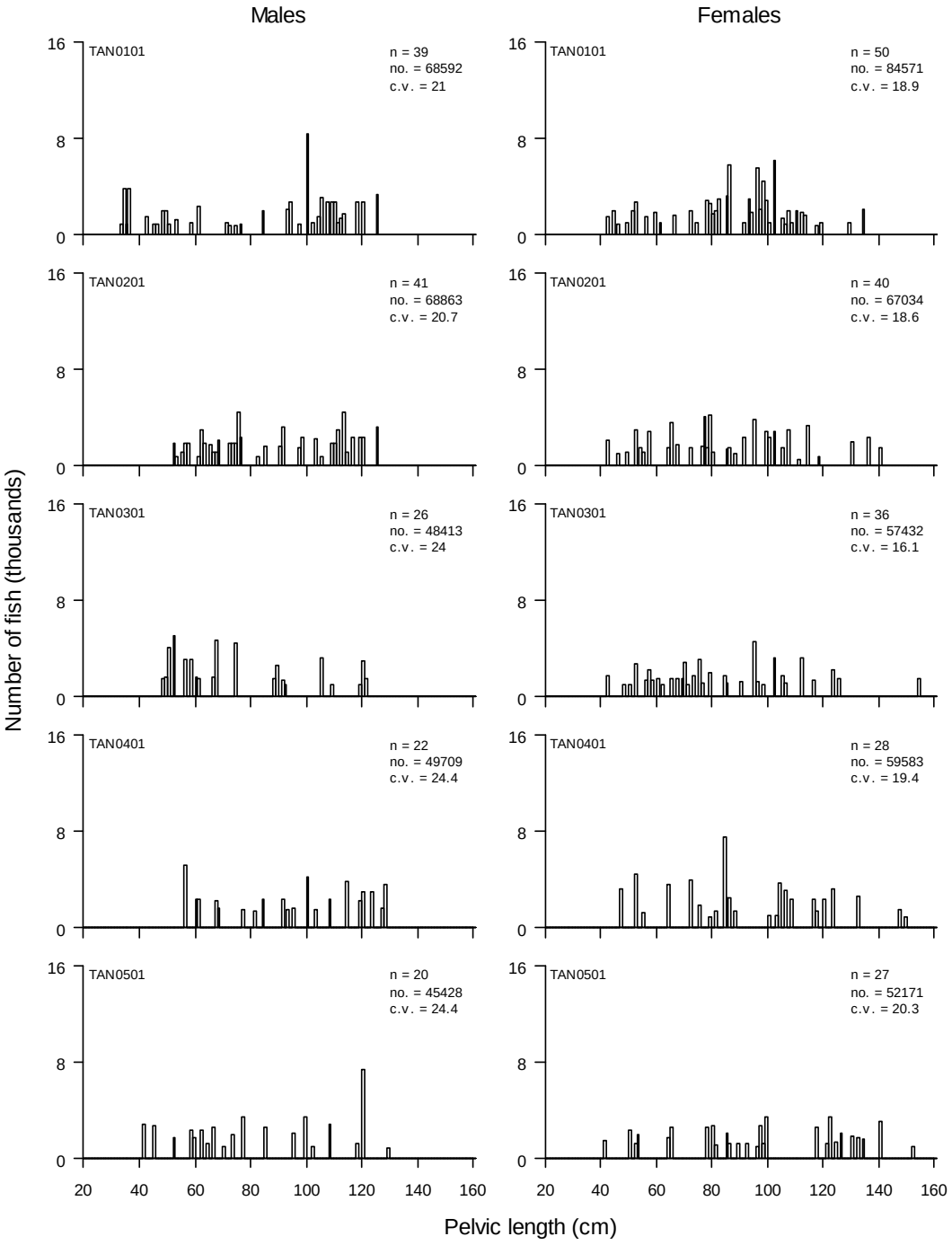
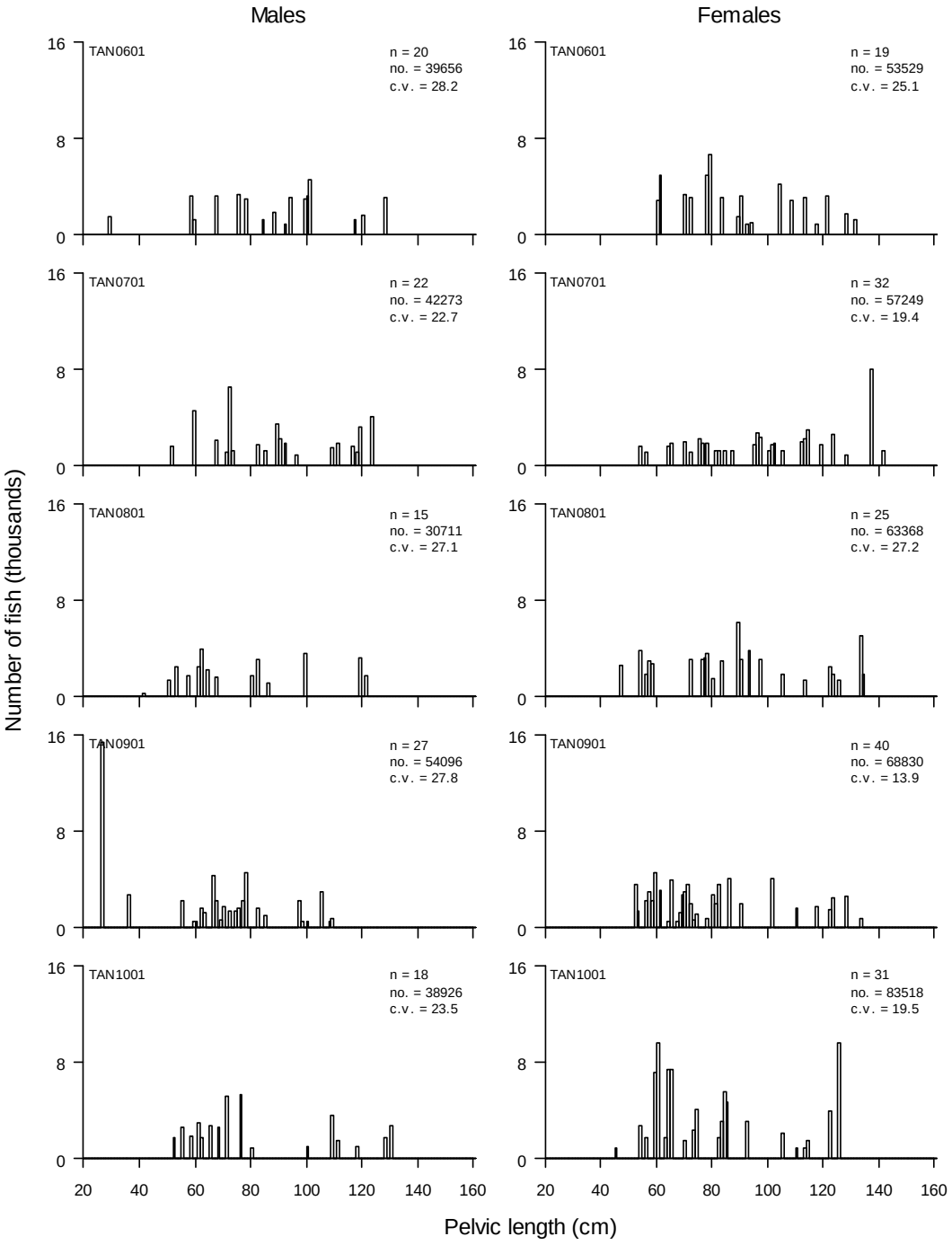
179°E
179°W
177°
175°


TAN1001
43°
44°
45°
173°
175°
177°
179°E
179°W
177°
175°

Length Frequencies




Males
Females
TAN0101
n = 39
no. = 68592
c.v. = 21
TAN0101
n = 50
no. = 84571
c.v. = 18.9
TAN0201
n = 41
no. = 68863
c.v. = 20.7
TAN0201
n = 40
no. = 67034
c.v. = 18.6
TAN0301
n = 26
no. = 48413
c.v. = 24
TAN0301
n = 36
no. = 57432
c.v. = 16.1
TAN0401
n = 22
no. = 49709
c.v. = 24.4
TAN0401
n = 28
no. = 59583
c.v. = 19.4
TAN0501
n = 20
no. = 45428
c.v. = 24.4
TAN0501
n = 27
no. = 52171
c.v. = 20.3
Number of fish (thousands)
Pelvic length (cm)
0
8
16
20
40
60
80
100
120
140
160


Males
Females
TAN0601
n = 20
no. = 39656
c.v. = 28.2
TAN0601
n = 19
no. = 53529
c.v. = 25.1
TAN0701
n = 22
no. = 42273
c.v. = 22.7
TAN0701
n = 32
no. = 57249
c.v. = 19.4
TAN0801
n = 15
no. = 30711
c.v. = 27.1
TAN0801
n = 25
no. = 63368
c.v. = 27.2
TAN0901
n = 27
no. = 54096
c.v. = 27.8
TAN0901
n = 40
no. = 68830
c.v. = 13.9
TAN1001
n = 18
no. = 38926
c.v. = 23.5
TAN1001
n = 31
no. = 83518
c.v. = 19.5
Number of fish (thousands)
0
8
16
20
40
60
80
100
120
140
160
Pelvic length (cm)

Gonad Stage Information (Cartilagenous)

Males

Year	p_M1	p_M2	p_M3	n_allM
1992	NA	NA	NA	0
1993	NA	NA	NA	0
1994	NA	NA	NA	0
1995	NA	NA	NA	0
1996	NA	NA	NA	0
1997	NA	NA	NA	0
1998	NA	NA	NA	0
1999	NA	NA	NA	0
2000	NA	NA	NA	0
2001	NA	NA	NA	0
2002	NA	NA	NA	0
2003	NA	NA	NA	0
2004	NA	NA	NA	0
2005	NA	NA	NA	0
2006	NA	NA	NA	0
2007	NA	NA	NA	0
2008	NA	NA	NA	0
2009	0.62	0.19	0.19	21
2010	0.71	0.06	0.24	17
ALL	0.66	0.13	0.21	38

Females

Year	p_F1	p_F2	p_F3	p_F4	p_F5	p_F6	n_allF
1992	NA	NA	NA	NA	NA	NA	0
1993	NA	NA	NA	NA	NA	NA	0
1994	NA	NA	NA	NA	NA	NA	0
1995	NA	NA	NA	NA	NA	NA	0
1996	NA	NA	NA	NA	NA	NA	0
1997	NA	NA	NA	NA	NA	NA	0
1998	NA	NA	NA	NA	NA	NA	0
1999	NA	NA	NA	NA	NA	NA	0
2000	NA	NA	NA	NA	NA	NA	0
2001	NA	NA	NA	NA	NA	NA	0
2002	NA	NA	NA	NA	NA	NA	0
2003	NA	NA	NA	NA	NA	NA	0
2004	NA	NA	NA	NA	NA	NA	0
2005	NA	NA	NA	NA	NA	NA	0
2006	NA	NA	NA	NA	NA	NA	0
2007	NA	NA	NA	NA	NA	NA	0
2008	NA	NA	NA	NA	NA	NA	0
2009	0.6	0.4	0	0	0	0	25
2010	0.55	0.4	0.05	0	0	0	20
ALL	0.58	0.4	0.02	0	0	0	45

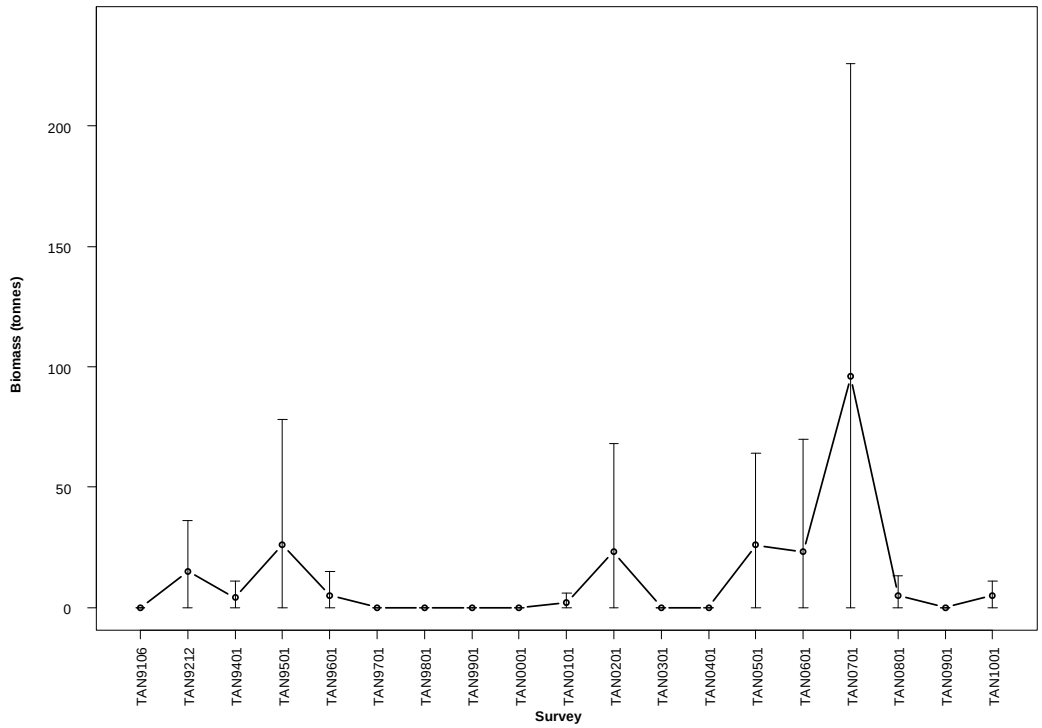
Smallscaled brown slickhead, (*Alepocephalus antipodianus*) SSM

Number of surveys caught 1992–2010 (out of 19):	11
Total catch weight (kg):	1 193.4
Number measured	633
Length range (mean) (cm)	–
Number weighed	289
Length-weight parameters a, b (r^2)	–

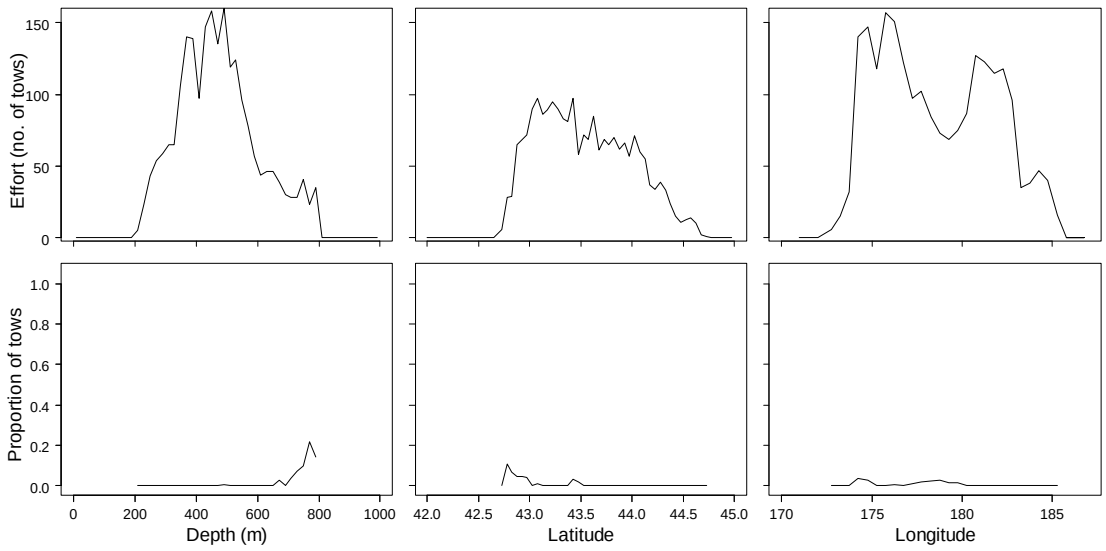
The core survey area and depth range **is not** appropriate for this species. It is found **deeper than 800 m**. Biomass of this species is **poorly** estimated in the core survey area. Biomass **shows no clear trend** since the start of the time series.

Relative biomass estimates

Year	Biomass (t)	cv (%)
1992	0	-
1993	15	73
1994	4	100
1995	26	100
1996	5	100
1997	0	-
1998	0	-
1999	0	-
2000	0	-
2001	2	100
2002	23	100
2003	0	-
2004	0	-
2005	26	74
2006	23	100
2007	96	67
2008	5	72
2009	0	-
2010	5	54



Distribution



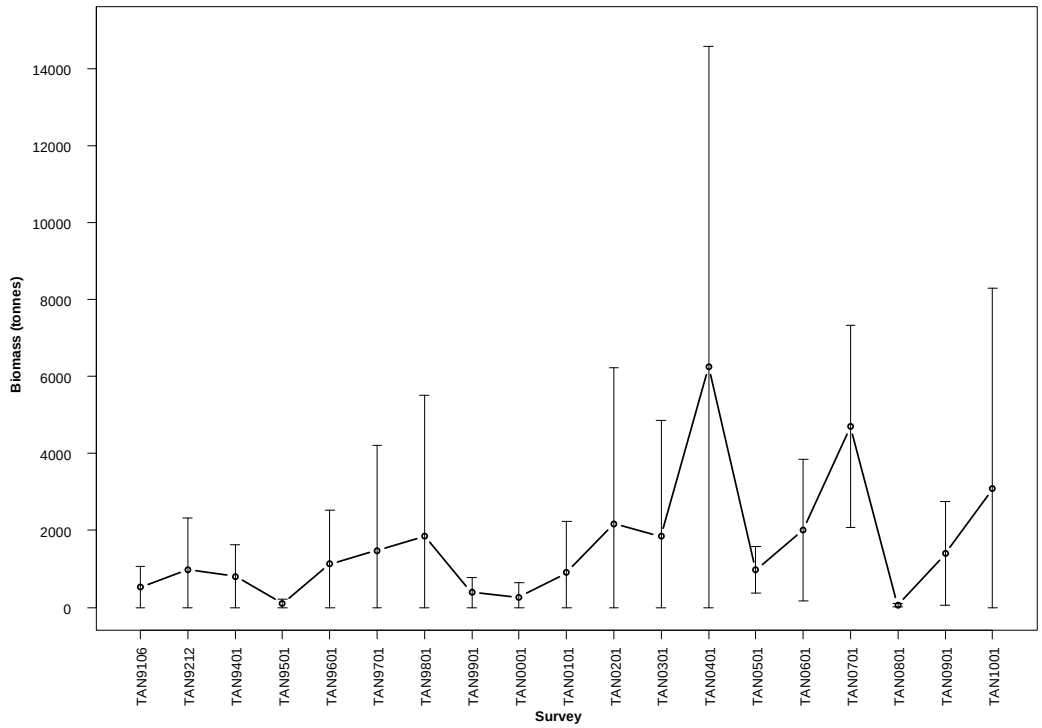
Smooth oreo (*Pseudocyttus maculatus*) SSO

Number of surveys caught 1992–2010 (out of 19):	19
Total catch weight (kg):	12 685.4
Number measured	6 589
Length range (mean) (cm, TL)	15–57 (31.6)
Number weighed	1 346
Length-weight parameters a, b (r^2)	0.033291, 2.899518 (95.72)

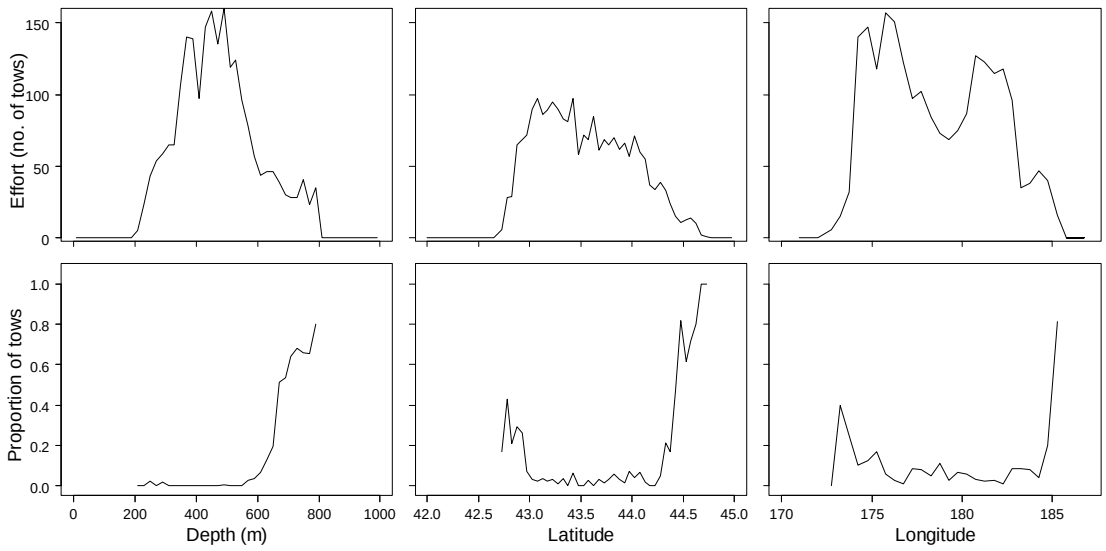
The core survey area and depth range **is not** appropriate for this species. It is found **deeper than 800 m**. Biomass of this species is **poorly** estimated in the core survey area. Biomass **shows no clear trend** since the start of the time series. Catch rates are highest in the **south**. Length frequencies have **multiple modes**. Mean length **shows no clear trend** since the start of the time series. Gonad stage data indicate that most fish are **immature/resting or early maturing**.

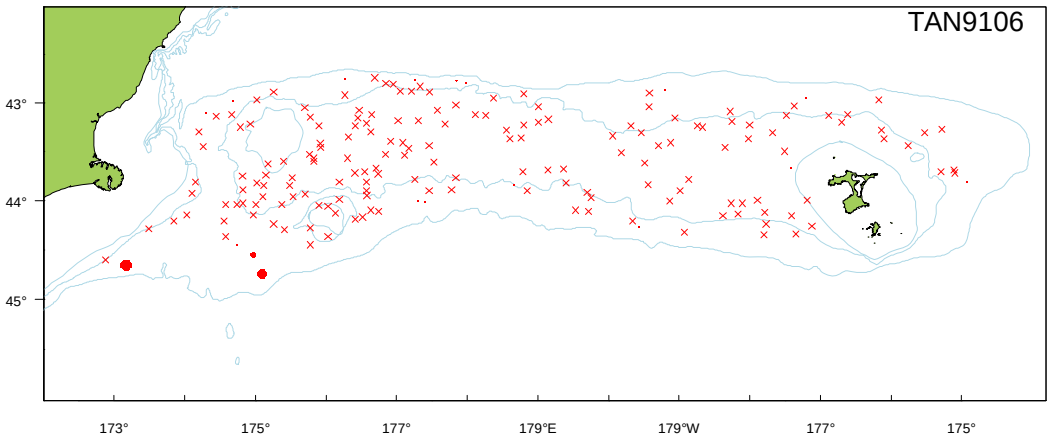
Relative biomass estimates and length summary

			Length (cm)			No.
Year	**Biomass (t)**	**cv (%)**	**Min.**	**Max.**	**Mean**	**measured**
1992	534	50	17	48	31.9	313
1993	975	69	18	57	33.7	450
1994	805	51	16	50	30.0	296
1995	104	56	19	42	28.7	82
1996	1 129	62	17	47	28.5	321
1997	1 474	93	19	48	28.4	206
1998	1 851	99	17	34	27.0	138
1999	385	50	16	43	28.3	145
2000	268	71	20	47	32.0	115
2001	907	74	22	49	33.3	226
2002	2 166	94	16	47	32.0	299
2003	1 853	81	16	44	29.2	202
2004	6 258	66	18	50	33.7	380
2005	974	31	15	52	31.4	291
2006	2 010	46	18	47	33.9	387
2007	4 706	28	19	45	33.2	425
2008	56	32	20	38	29.1	20
2009	1 394	48	19	49	32.5	303
2010	3 087	84	17	46	31.8	295



Distribution

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177°
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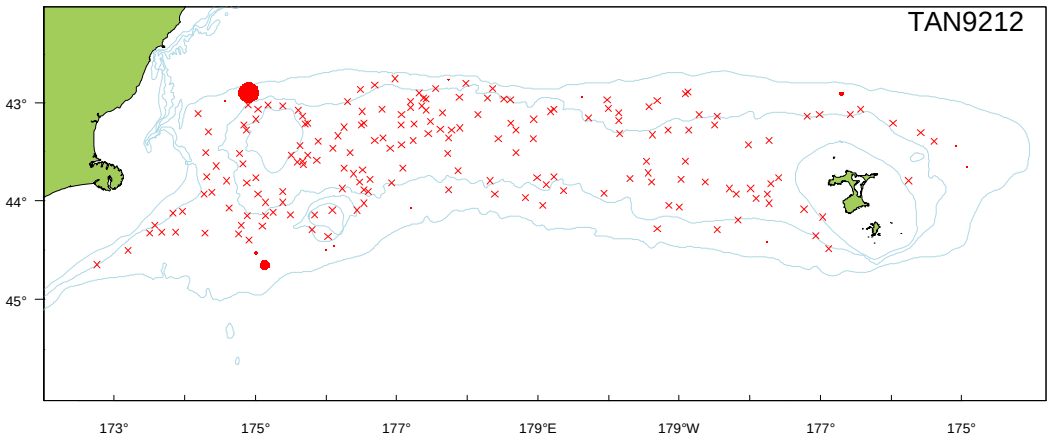
177°
175°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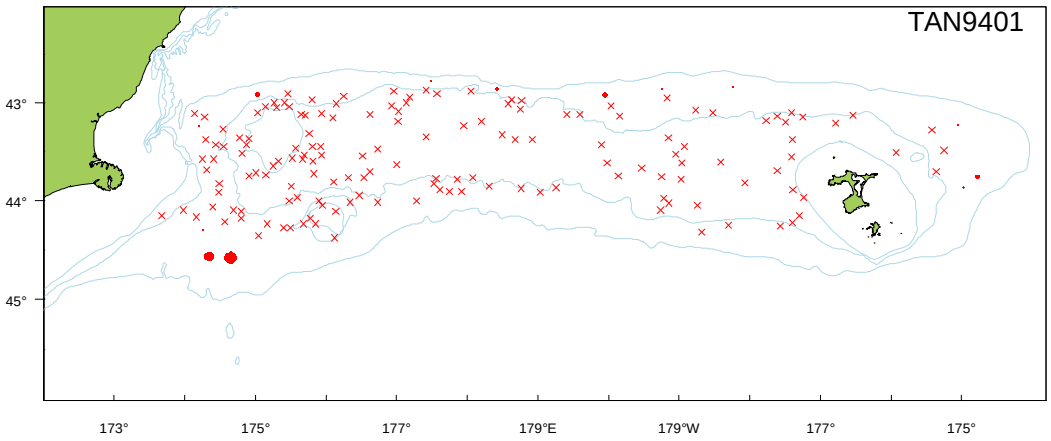
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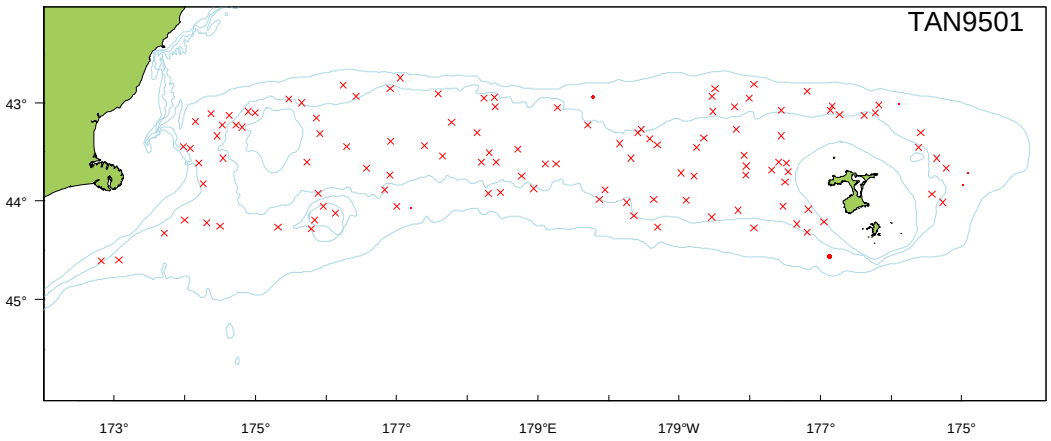
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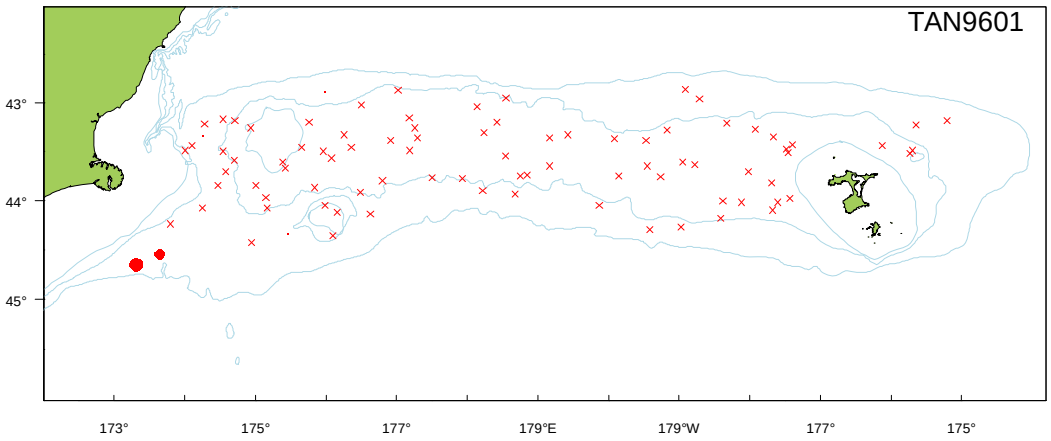
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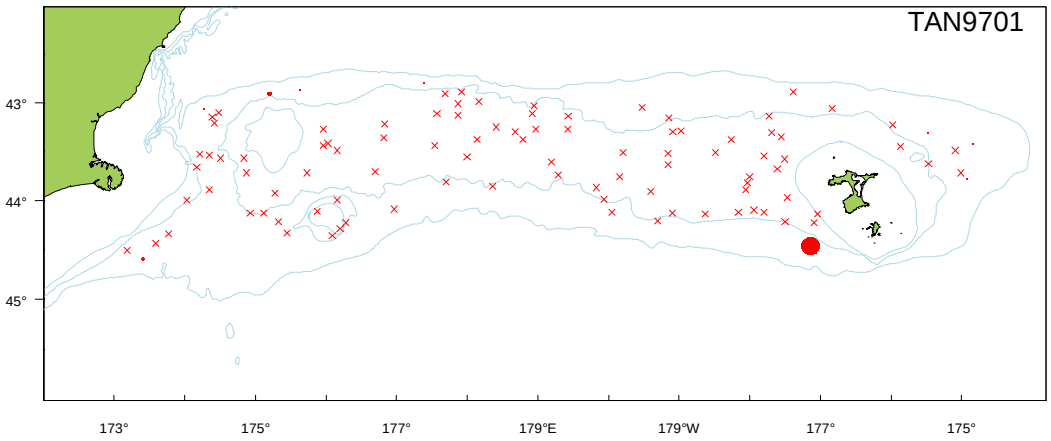
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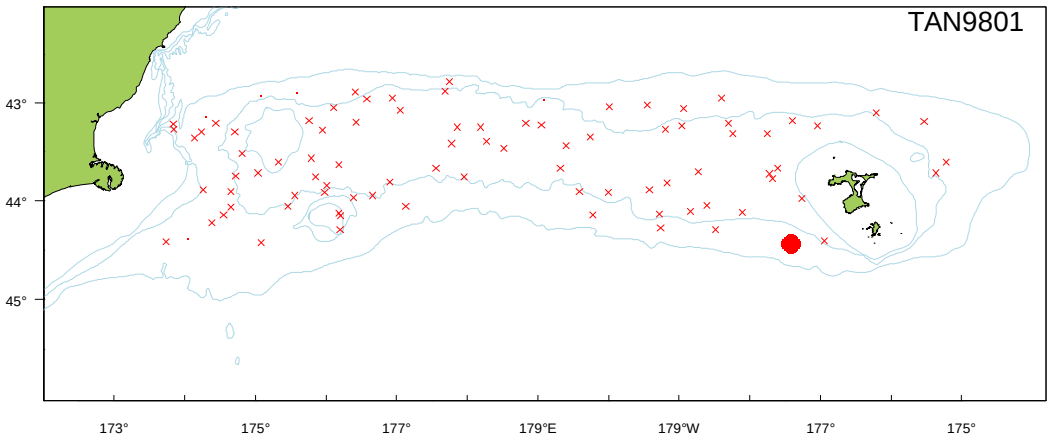
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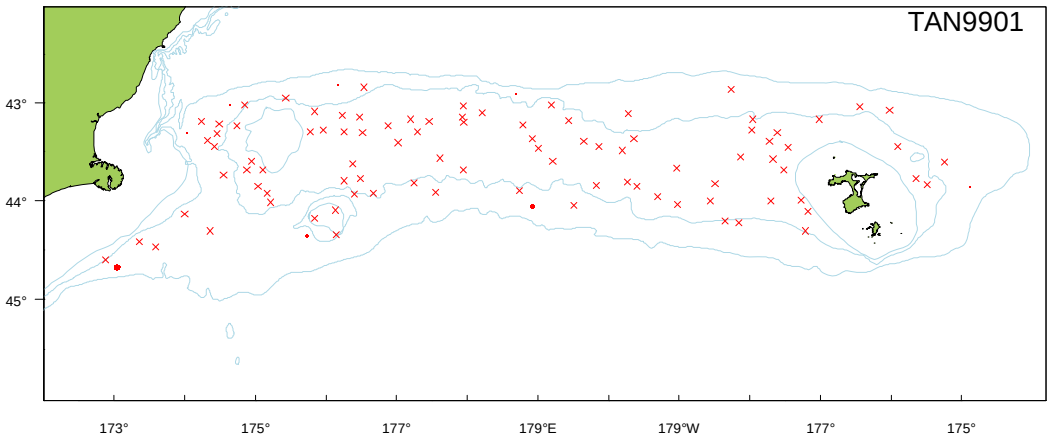
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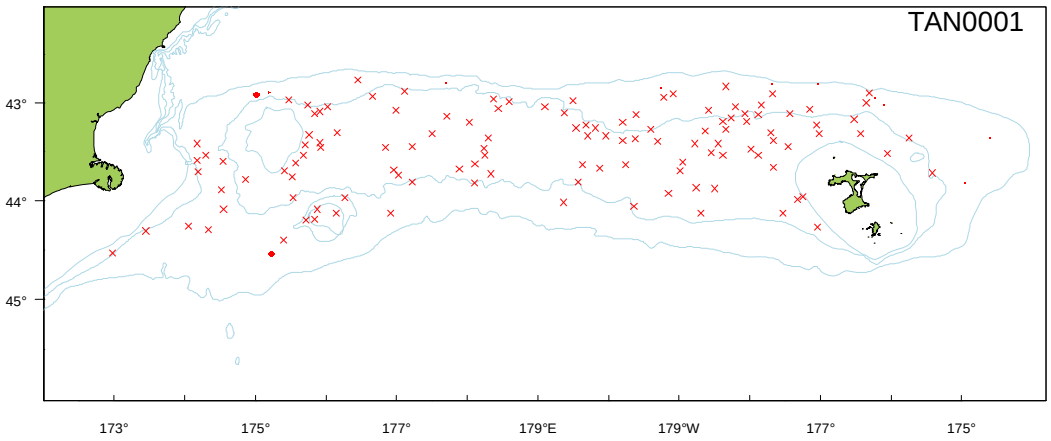
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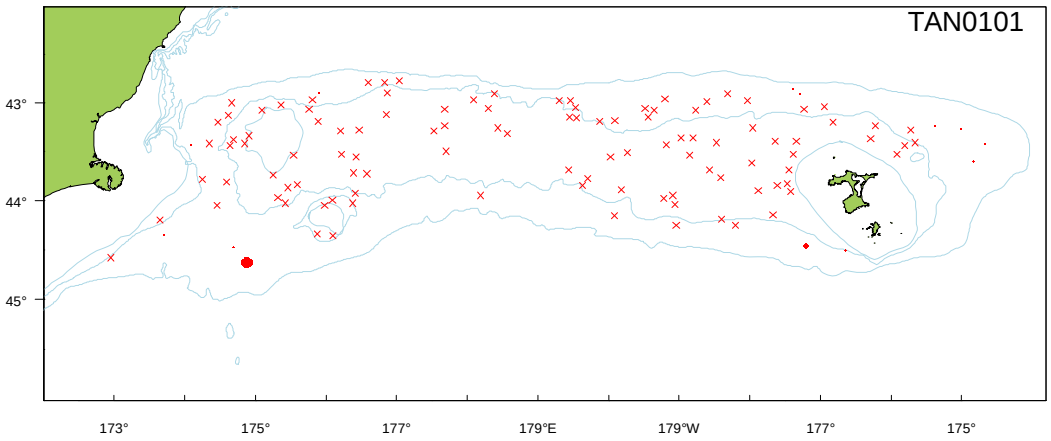
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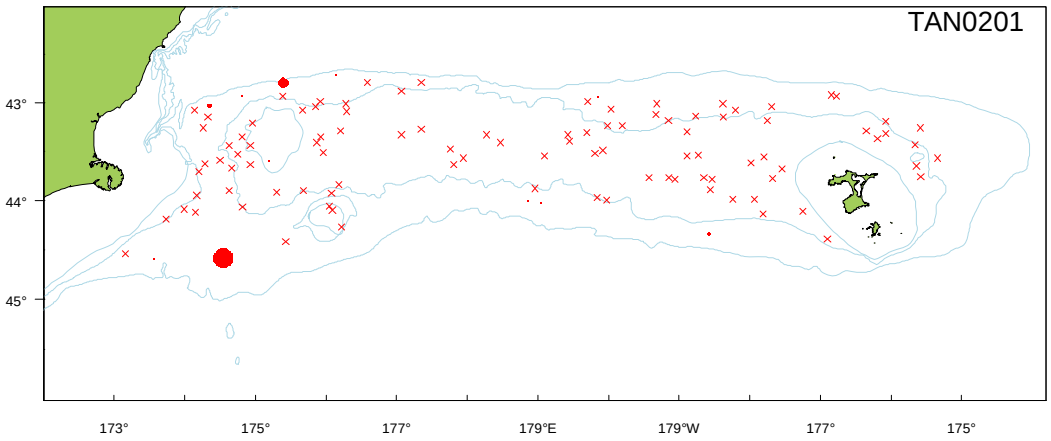
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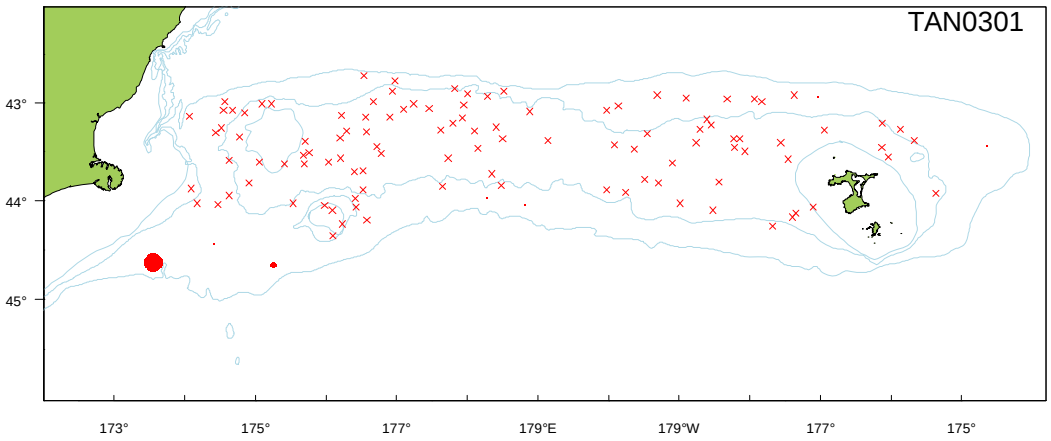
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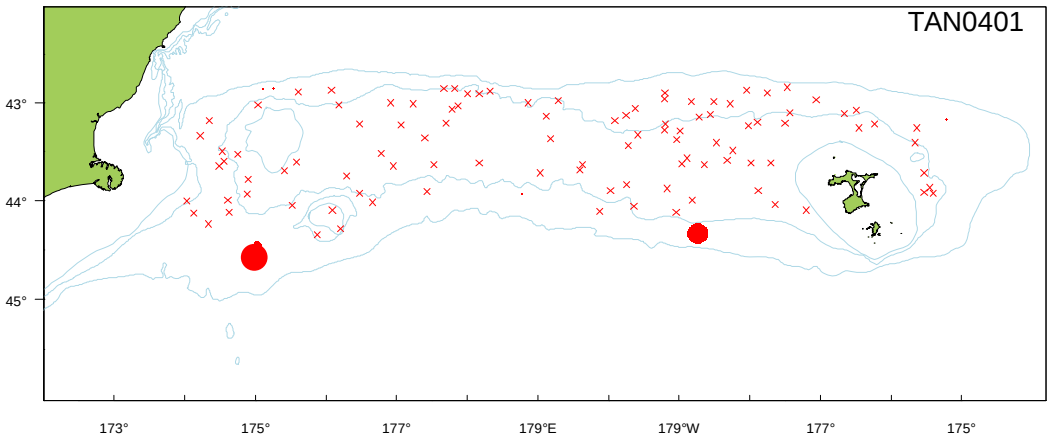
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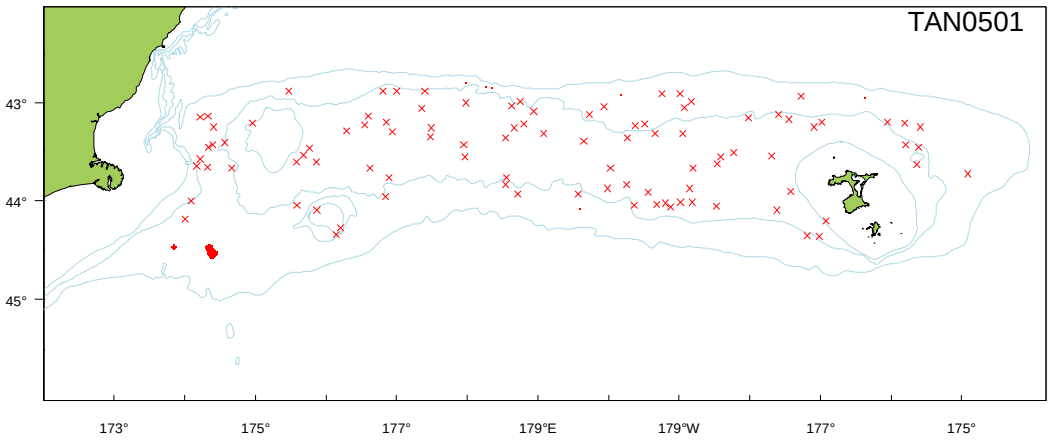
175°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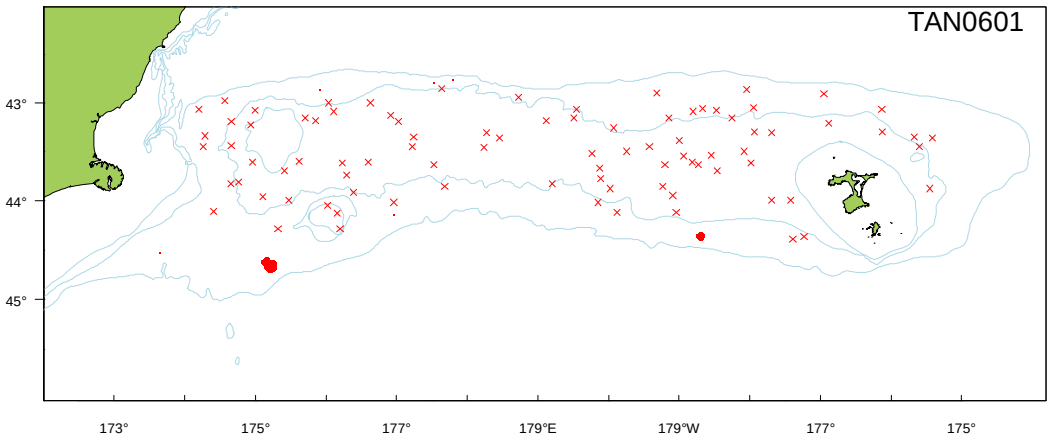
175°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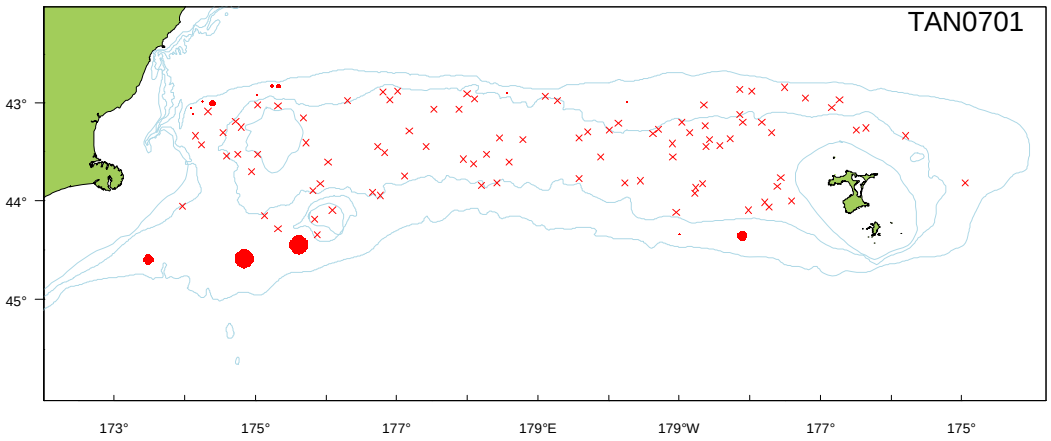
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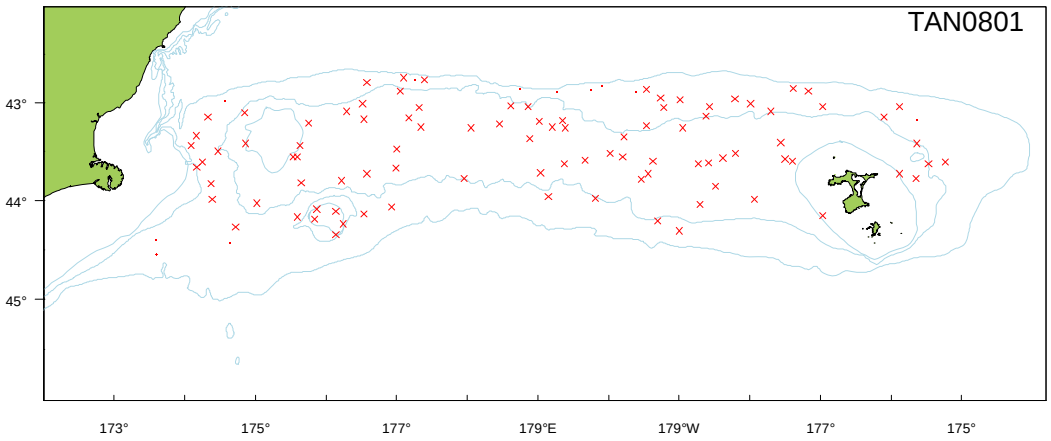
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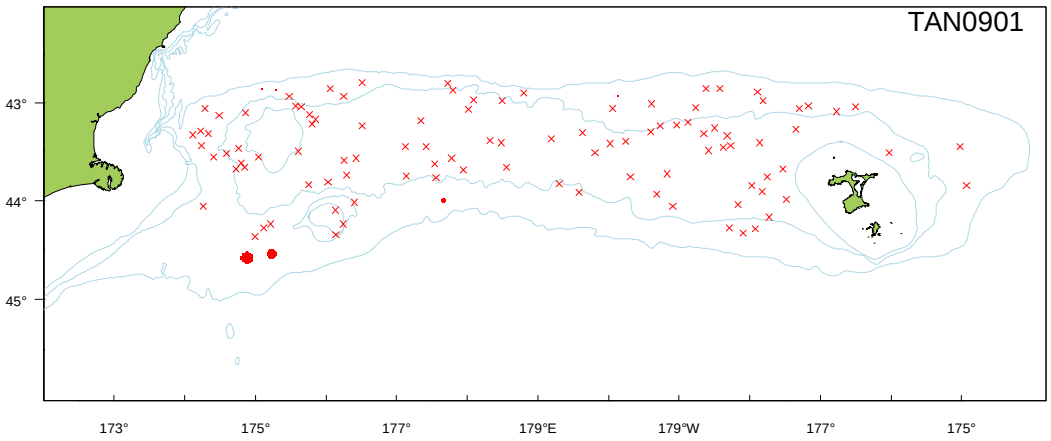
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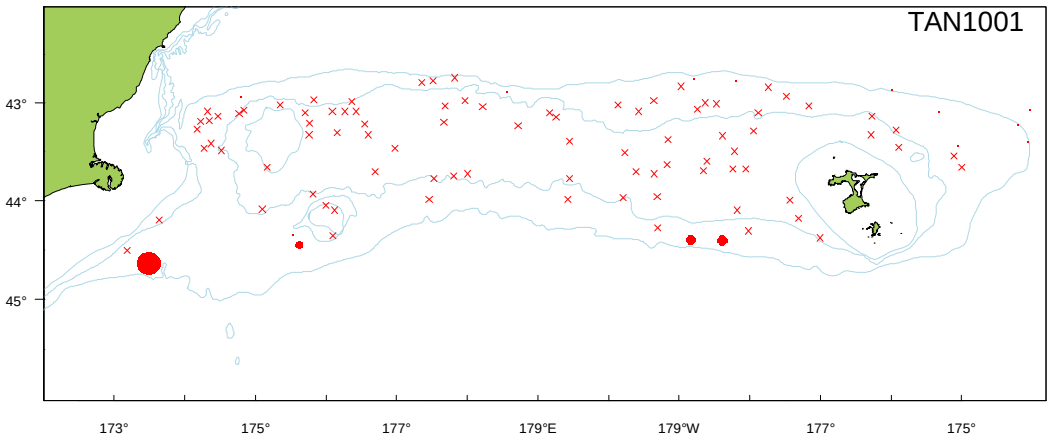
TAN1001
43°
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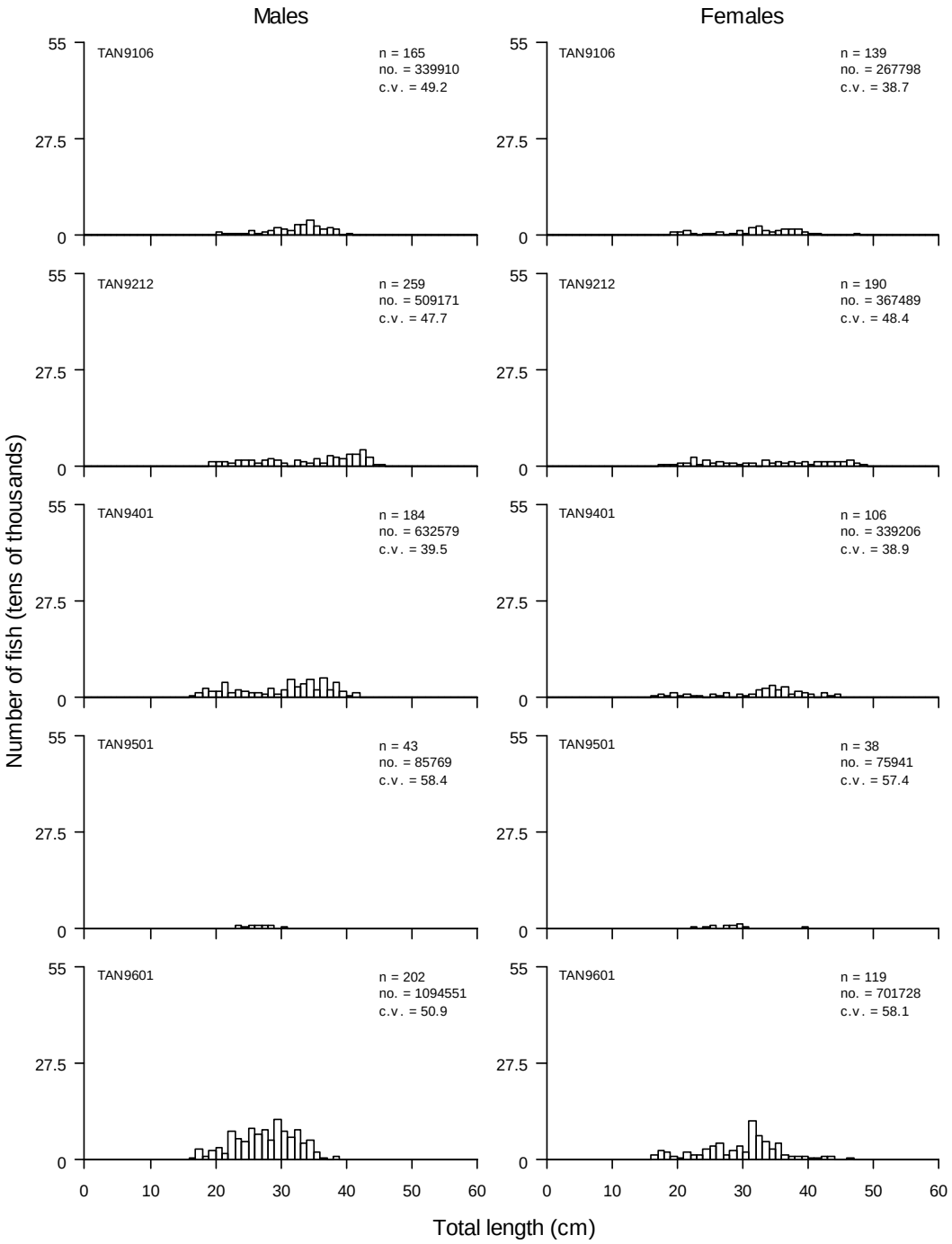
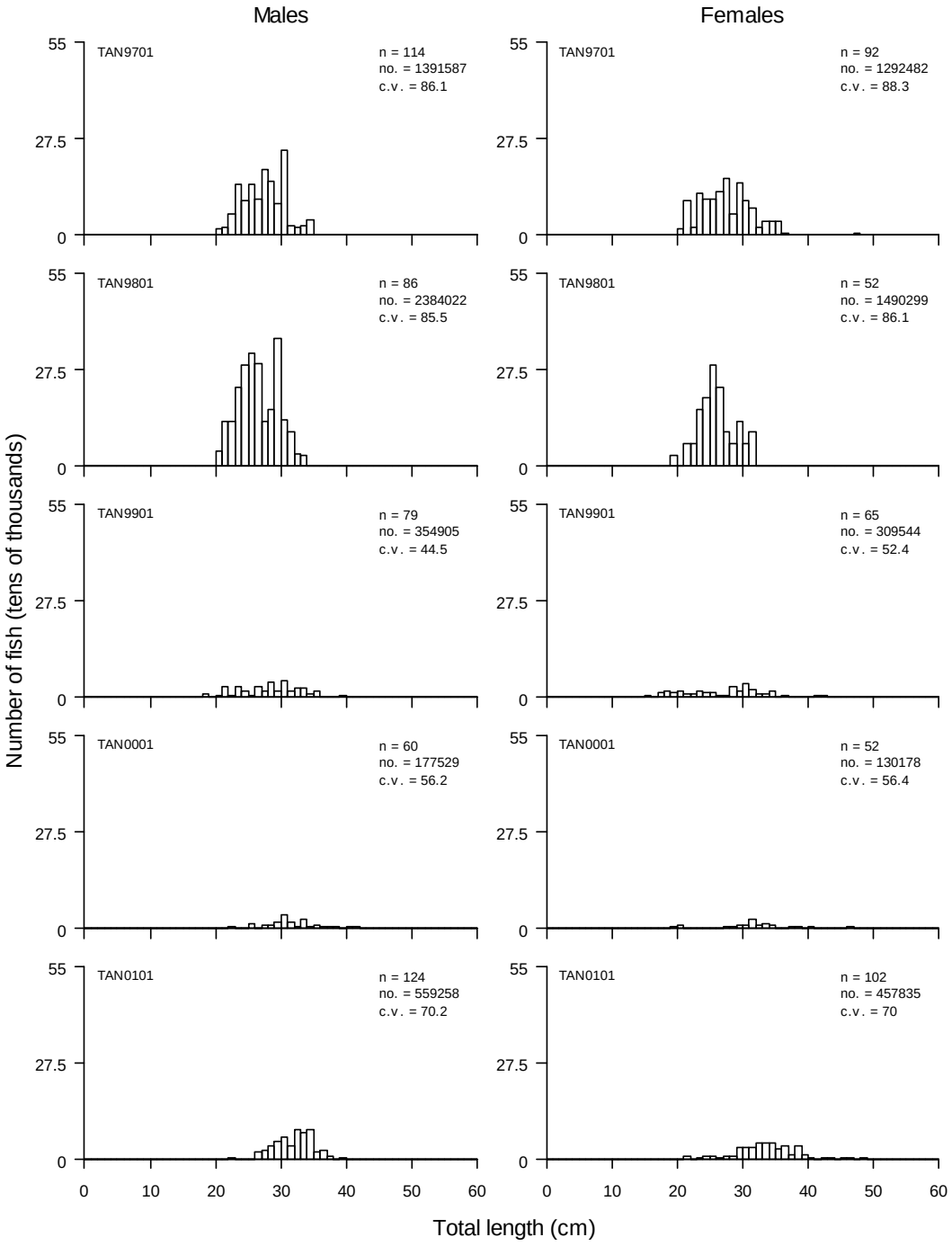
Length Frequencies




Males
Females
Number of fish (tens of thousands)
Total length (cm)
TAN9701
n = 114
no. = 1391587
c.v. = 86.1
TAN9701
n = 92
no. = 1292482
c.v. = 88.3
TAN9801
n = 86
no. = 2384022
c.v. = 85.5
TAN9801
n = 52
no. = 1490299
c.v. = 86.1
TAN9901
n = 79
no. = 354905
c.v. = 44.5
TAN9901
n = 65
no. = 309544
c.v. = 52.4
TAN0001
n = 60
no. = 177529
c.v. = 56.2
TAN0001
n = 52
no. = 130178
c.v. = 56.4
TAN0101
n = 124
no. = 559258
c.v. = 70.2
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n = 102
no. = 457835
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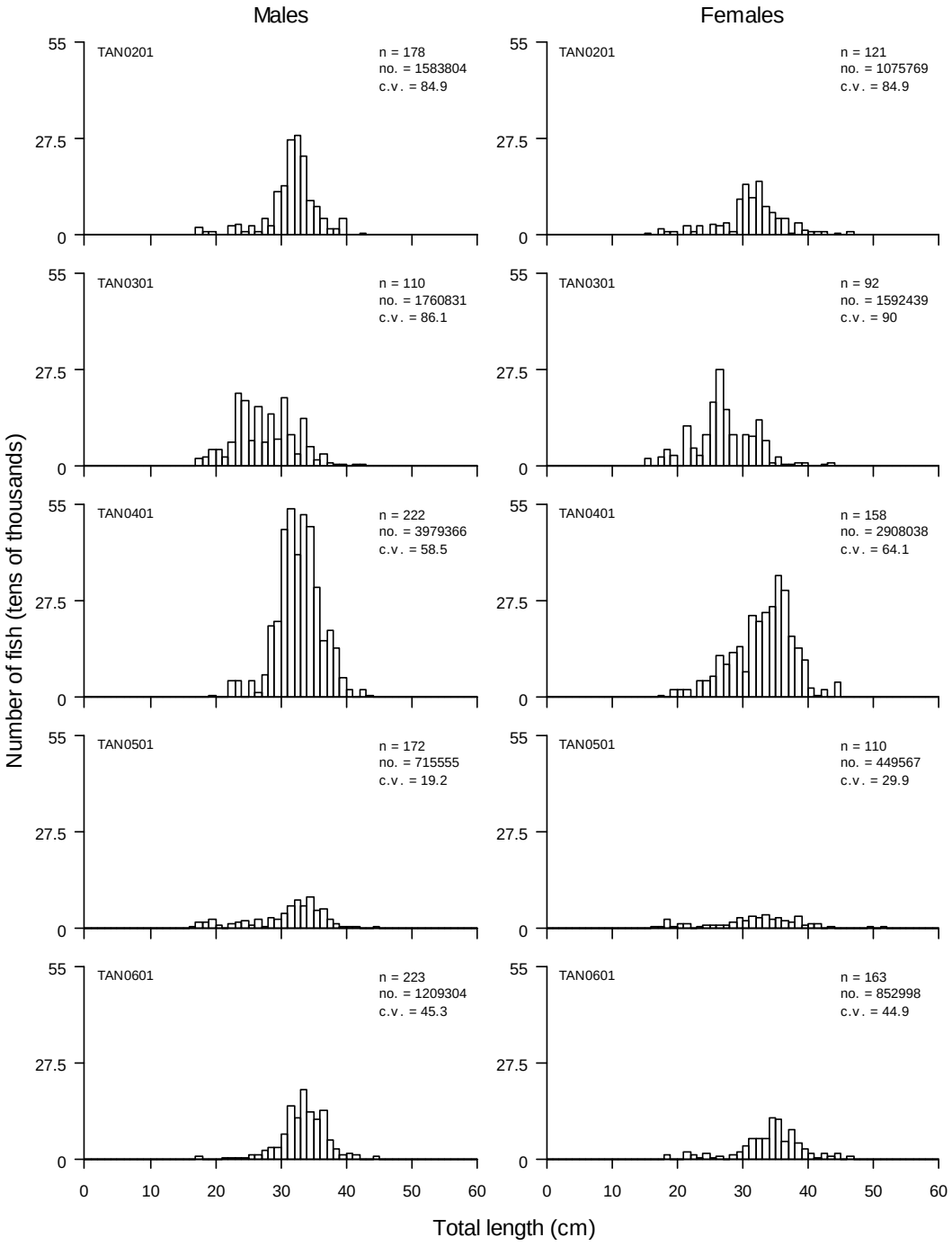
27.5
55
0
10
20
30
40
50
60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Females
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n = 121
no. = 1075769
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TAN0301
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no. = 1760831
c.v. = 86.1
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n = 92
no. = 1592439
c.v. = 90
TAN0401
n = 222
no. = 3979366
c.v. = 58.5
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n = 158
no. = 2908038
c.v. = 64.1
TAN0501
n = 172
no. = 715555
c.v. = 19.2
TAN0501
n = 110
no. = 449567
c.v. = 29.9
TAN0601
n = 223
no. = 1209304
c.v. = 45.3
TAN0601
n = 163
no. = 852998
c.v. = 44.9
Number of fish (tens of thousands)
Total length (cm)
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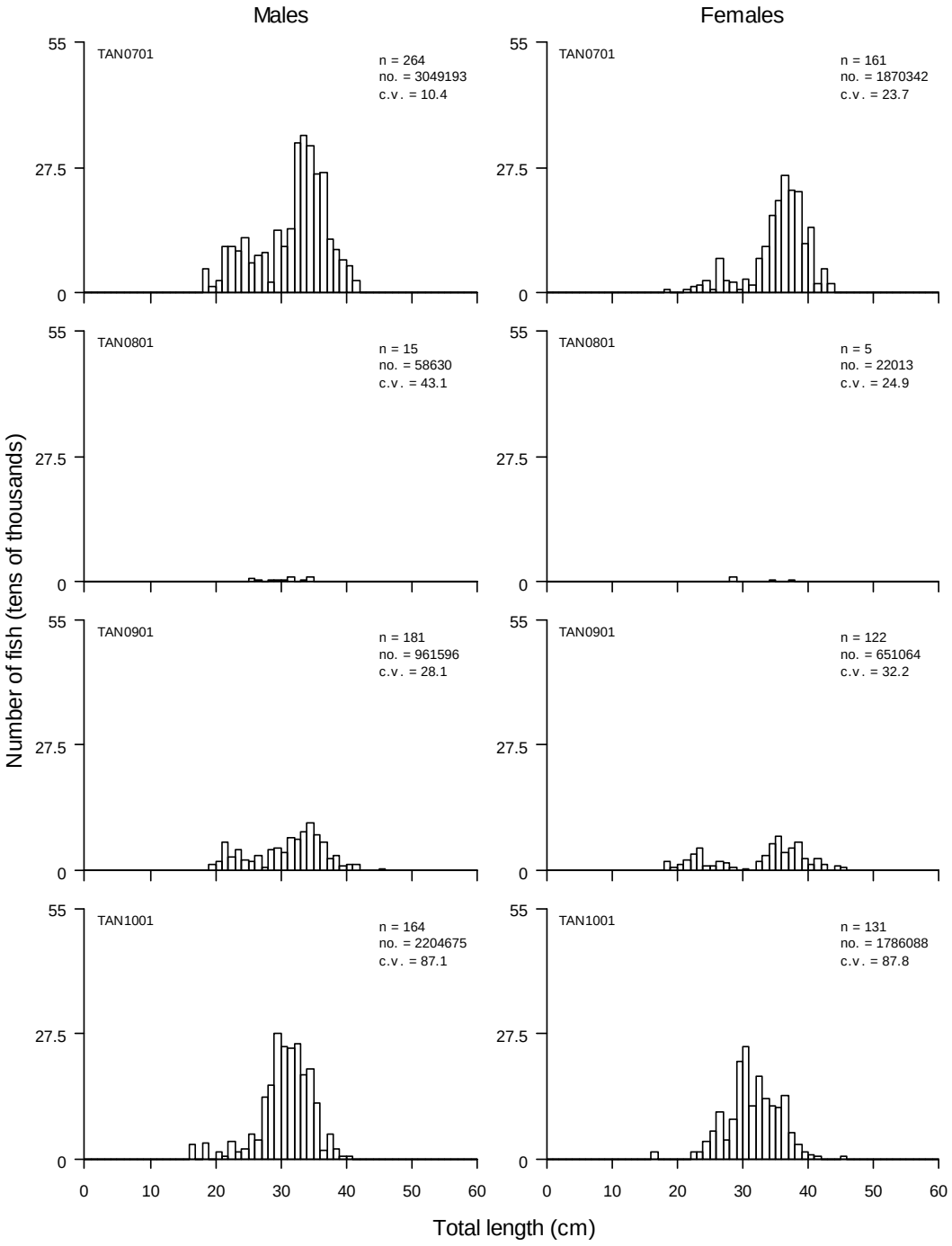
27.5
55
0
10
20
30
40
50
60


Males
Females
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c.v. = 10.4
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n = 161
no. = 1870342
c.v. = 23.7
TAN0801
n = 15
no. = 58630
c.v. = 43.1
TAN0801
n = 5
no. = 22013
c.v. = 24.9
TAN0901
n = 181
no. = 961596
c.v. = 28.1
TAN0901
n = 122
no. = 651064
c.v. = 32.2
TAN1001
n = 164
no. = 2204675
c.v. = 87.1
TAN1001
n = 131
no. = 1786088
c.v. = 87.8
Number of fish (tens of thousands)
Total length (cm)
0
27.5
55
0
10
20
30
40
50
60

Gonad Stage Information (Deepwater)

Males

Year	p_M1	p_M2	p_M3	p_M4	p_M5	p_M6	p_M7	p_M8	p_M9	n_allM
1992	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
1993	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
1994	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
1995	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
1996	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
1997	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
1998	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
2005	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
2010	0.34	0.6	0	0.02	0.02	0	0	0.02	0	161
ALL	0.34	0.6	0	0.02	0.02	0	0	0.02	0	161

Females

Year	p_F1	p_F2	p_F3	p_F4	p_F5	p_F6	p_F7	p_F8	p_F9	n_allF
1992	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
1993	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
1994	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
1995	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
1996	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
1997	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
1998	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
2005	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
2010	0.48	0.48	0.03	0	0	0	0	0	0	130
ALL	0.48	0.48	0.03	0	0	0	0	0	0	130

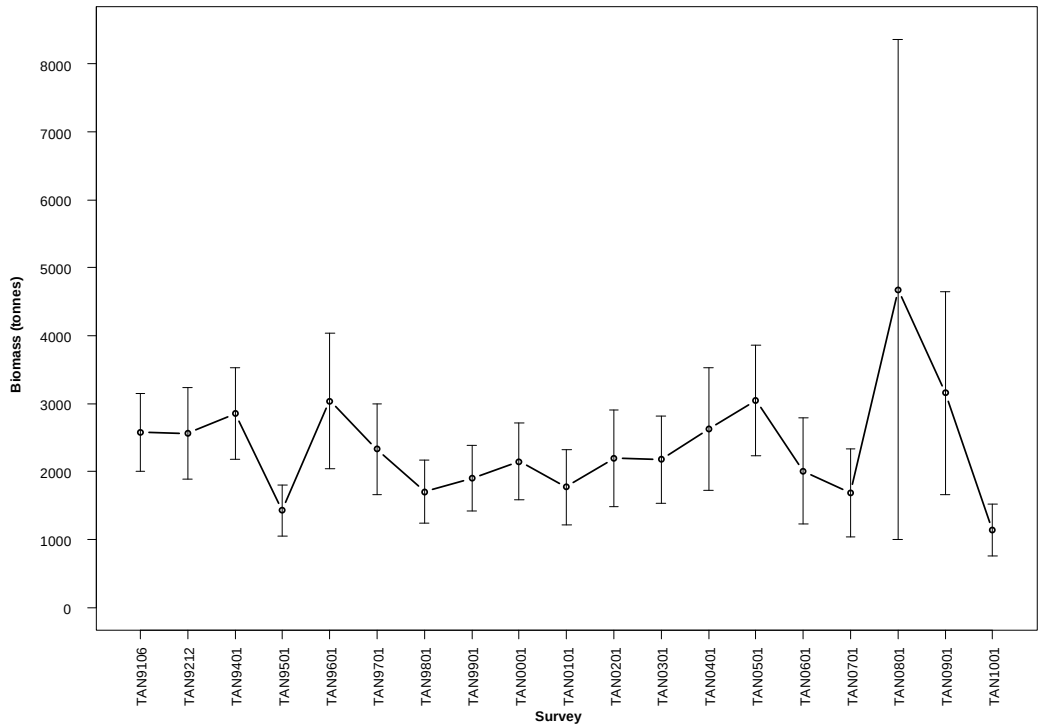
Giant stargazer (*Kathetostoma giganteum*) STA

Number of surveys caught 1992–2010 (out of 19):	19
Total catch weight (kg):	31 328.2
Number measured	9 428
Length range (mean) (cm, TL)	7–86 (53.7)
Number weighed	4 794
Length-weight parameters a, b (r^2)	0.007405, 3.198464 (97.59)

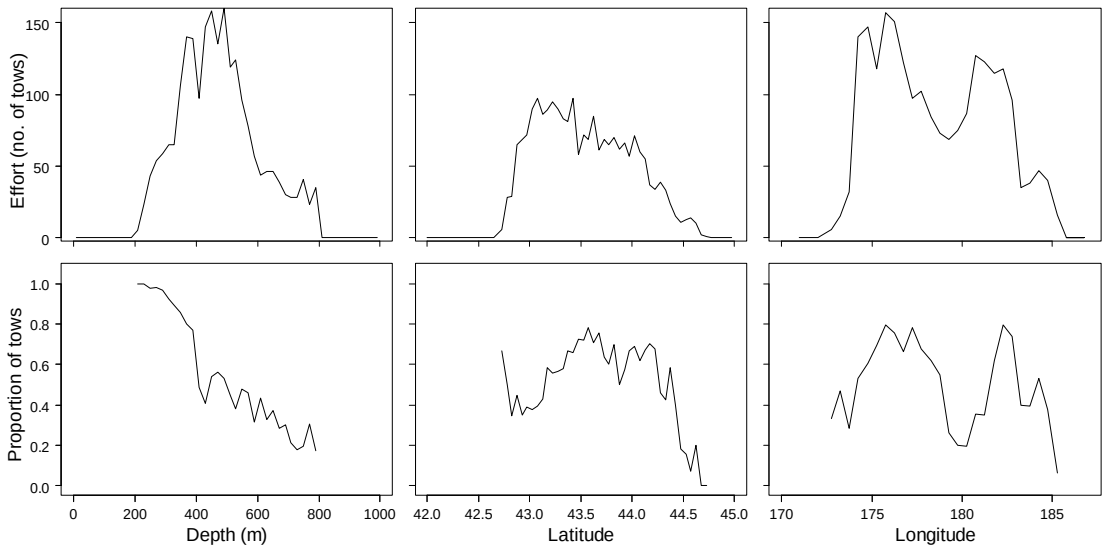
The core survey area and depth range **is not** appropriate for this species. It is found **shallower than 200 m**. Biomass of this species is **very well** estimated in the core survey area. Biomass **shows no clear trend** since the start of the time series. Catch rates are highest in the **west**. Length frequencies **have multiple modes which may contain information about year-class strength**. Mean length has **decreased** since the start of the time series. Gonad stage data indicate that most fish are **immature or resting, although maturing and spent females are also caught** during the survey.

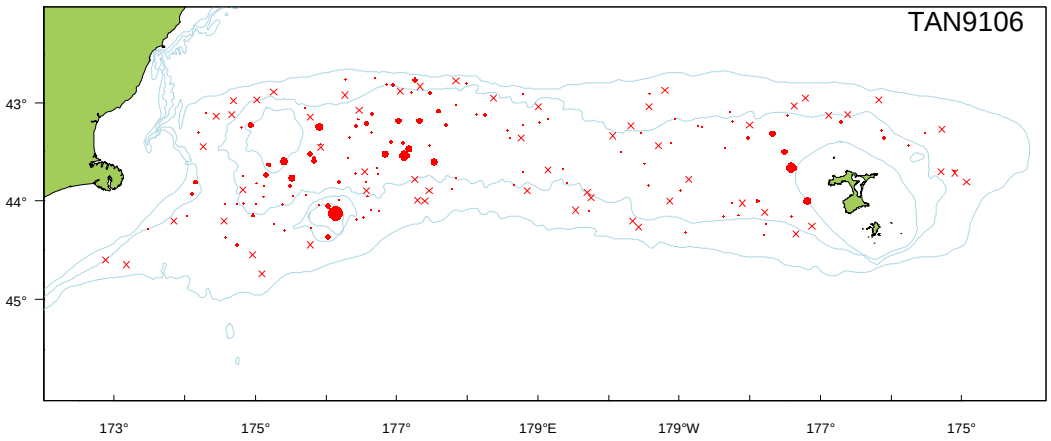
Relative biomass estimates and length summary

			Length (cm)			No.
Year	**Biomass (t)**	**cv (%)**	**Min.**	**Max.**	**Mean**	**measured**
1992	2 576	11	19	83	52.4	849
1993	2 566	13	24	81	53.6	876
1994	2 854	12	15	82	54.1	917
1995	1 428	13	16	80	54.4	280
1996	3 039	16	24	82	55.7	451
1997	2 328	14	20	80	56.8	367
1998	1 702	14	27	82	56.3	269
1999	1 902	13	16	81	53.1	381
2000	2 149	13	19	82	53.6	550
2001	1 772	16	22	86	52.6	388
2002	2 195	16	20	85	54.0	422
2003	2 178	15	24	83	52.2	567
2004	2 625	17	23	80	53.2	411
2005	3 045	13	20	84	53.6	505
2006	2 007	20	7	80	51.3	316
2007	1 689	19	22	78	52.6	320
2008	4 677	39	21	80	52.7	520
2009	3 154	24	23	80	55.5	472
2010	1 140	17	31	79	53.2	172



Distribution

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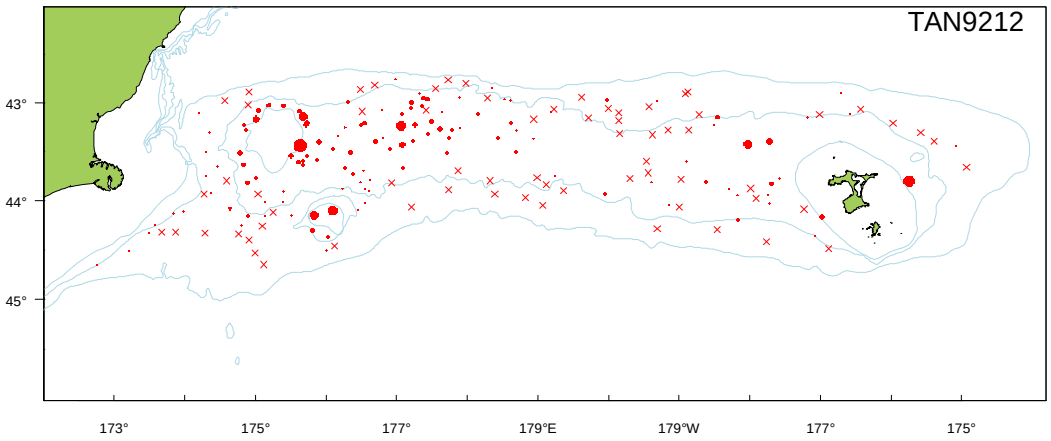
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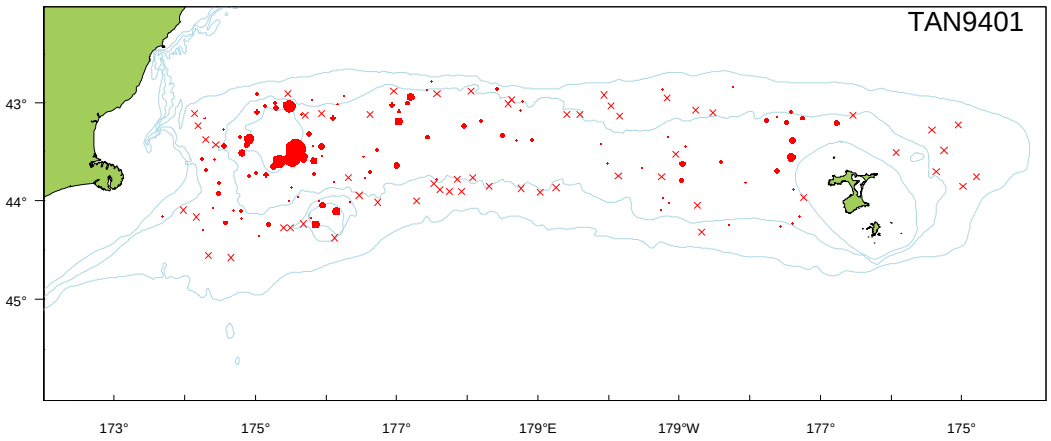
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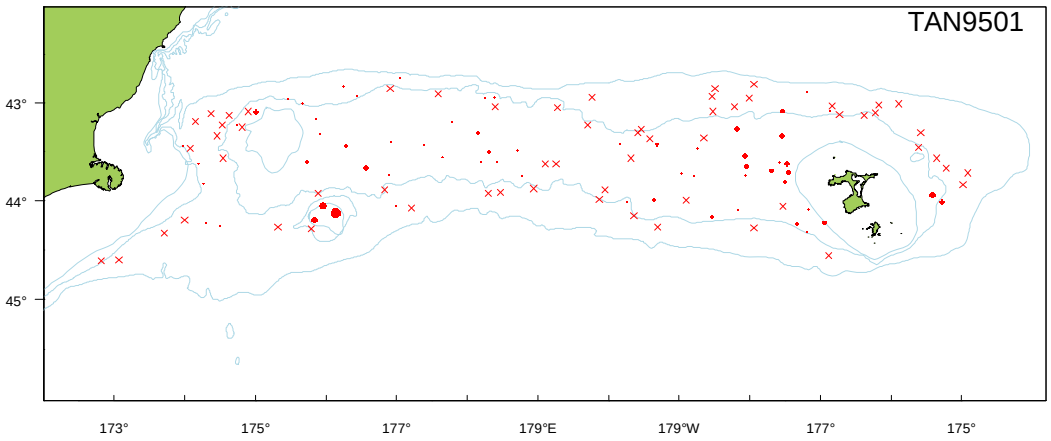
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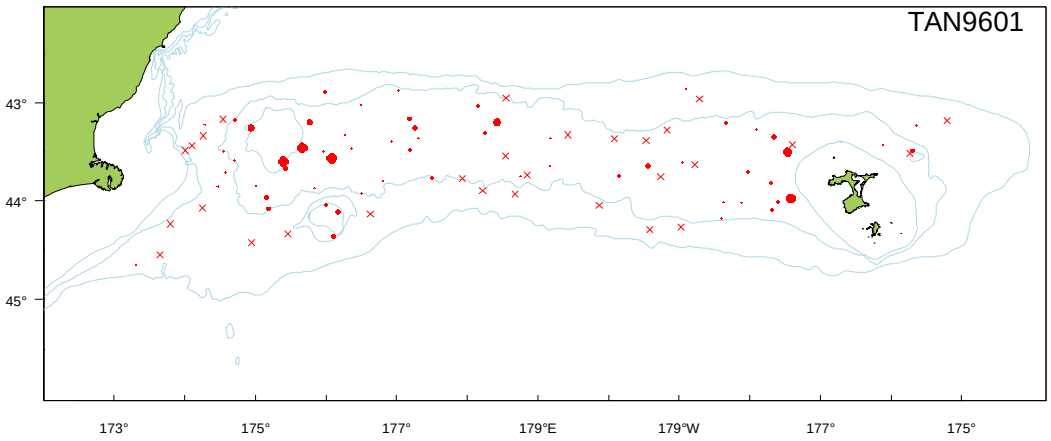
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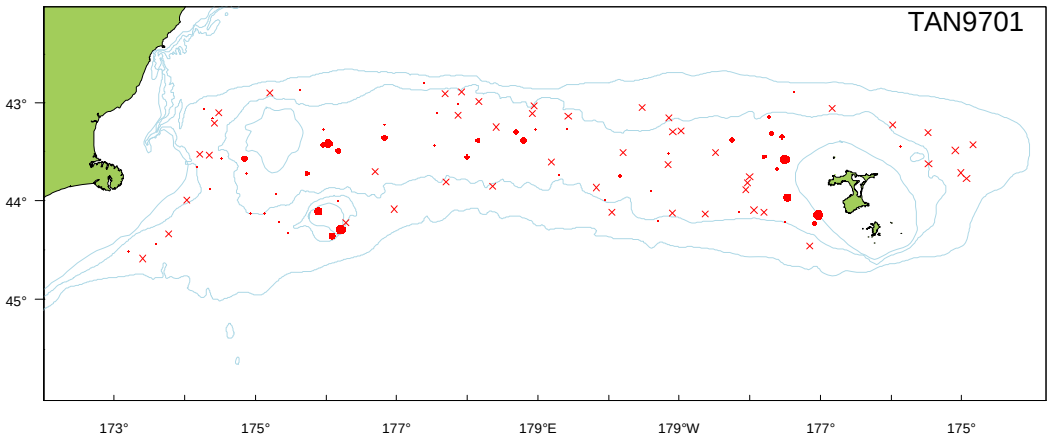
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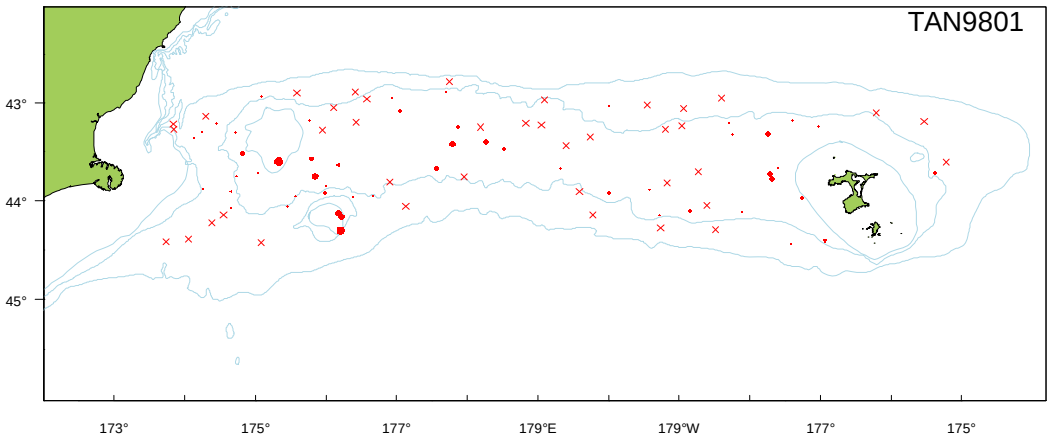
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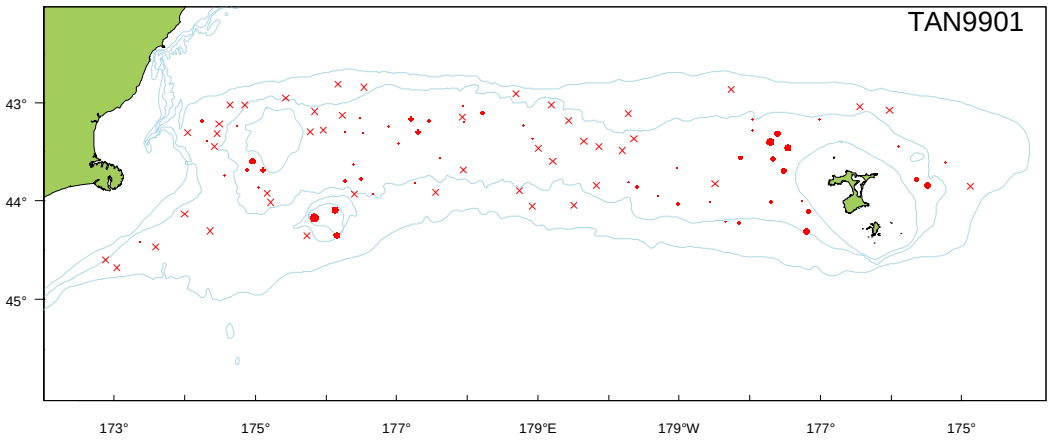
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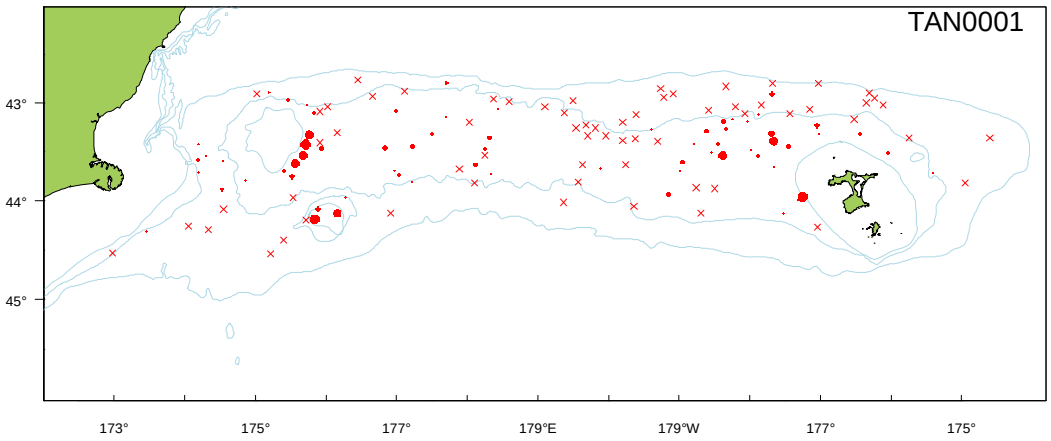
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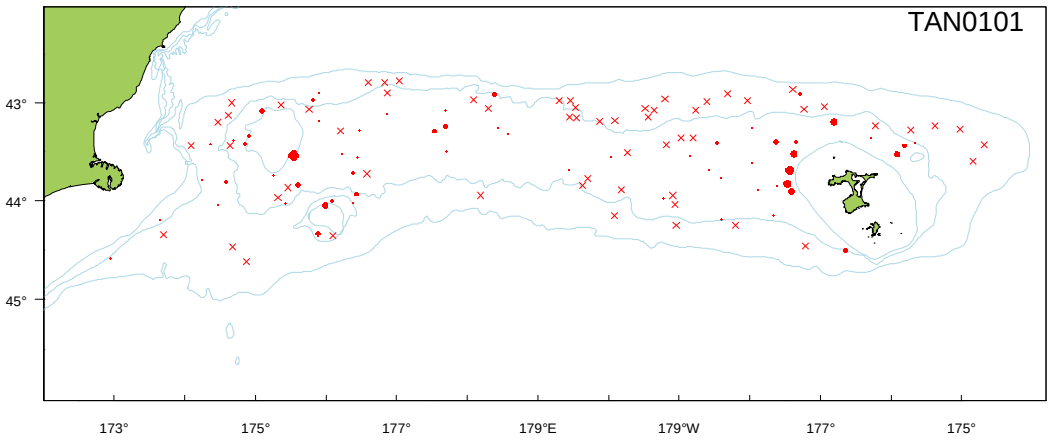
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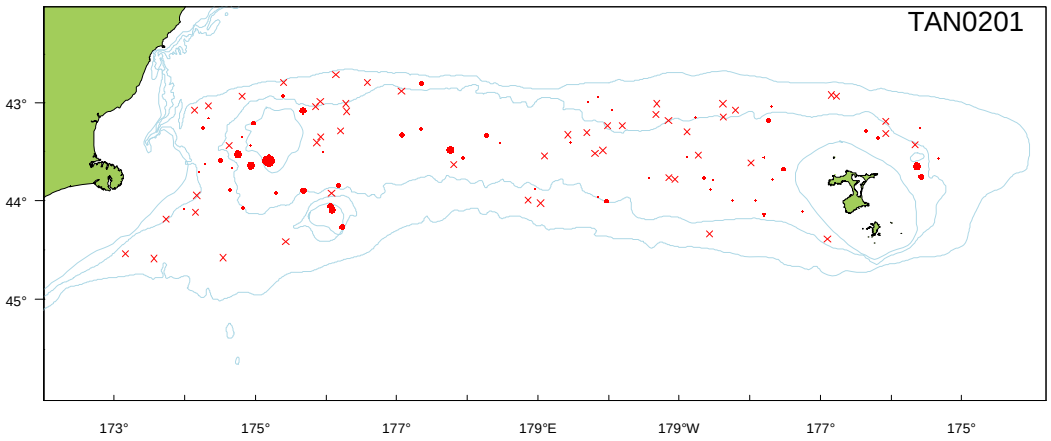
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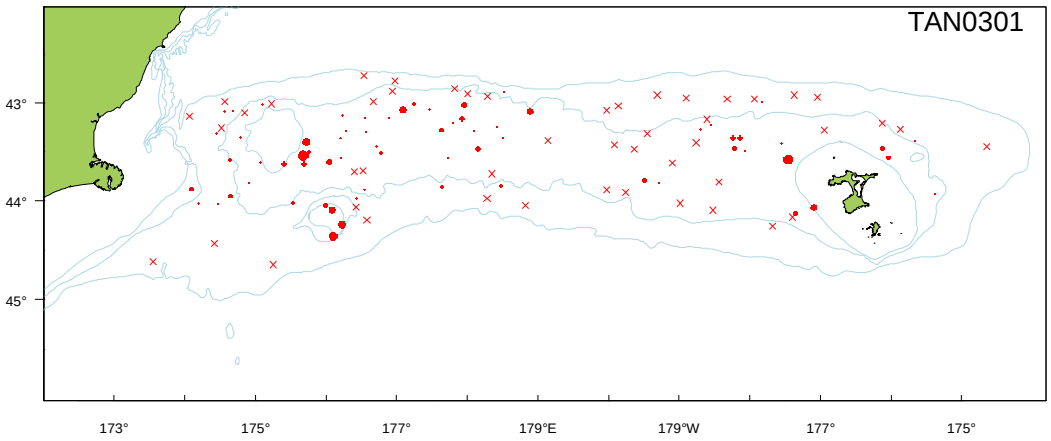
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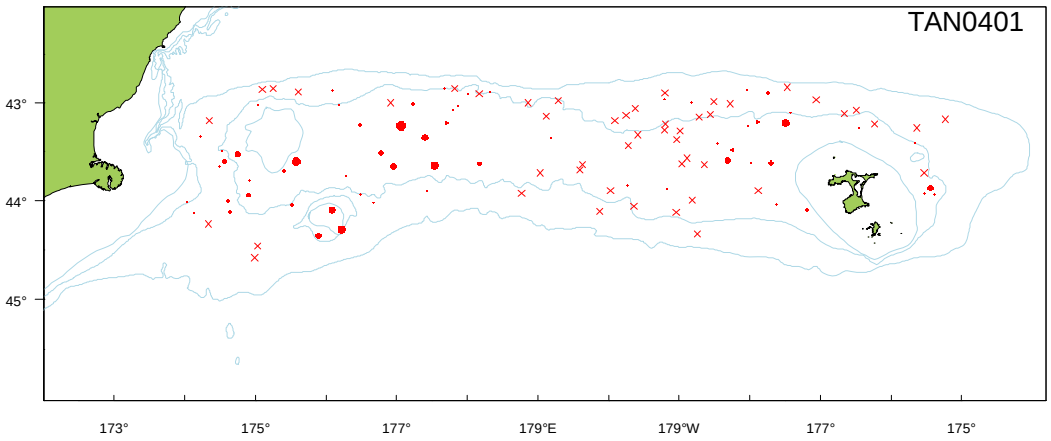
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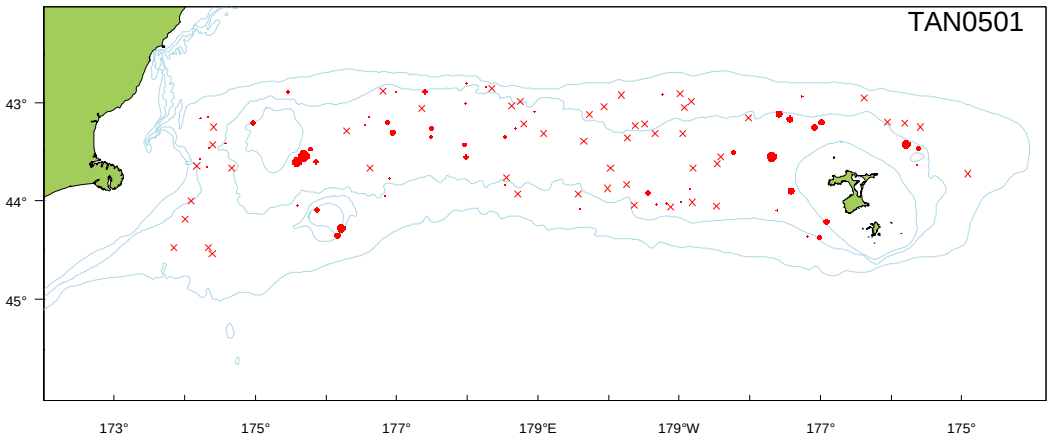
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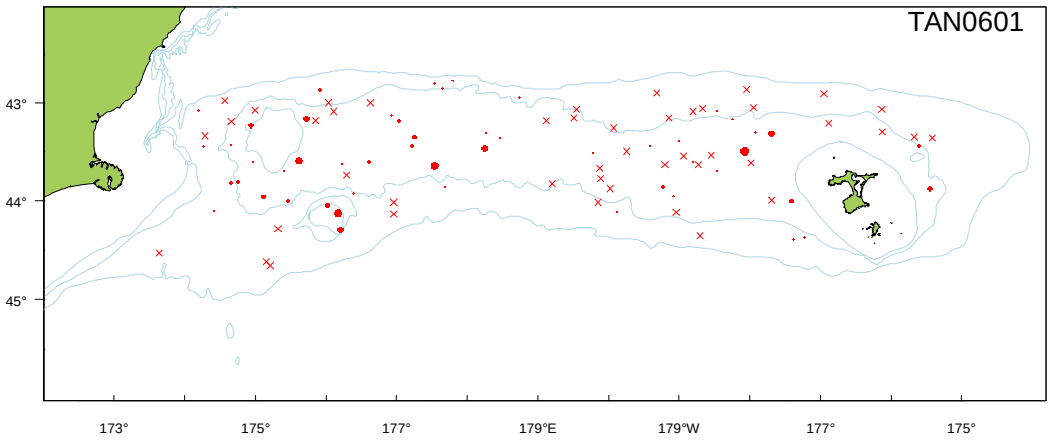
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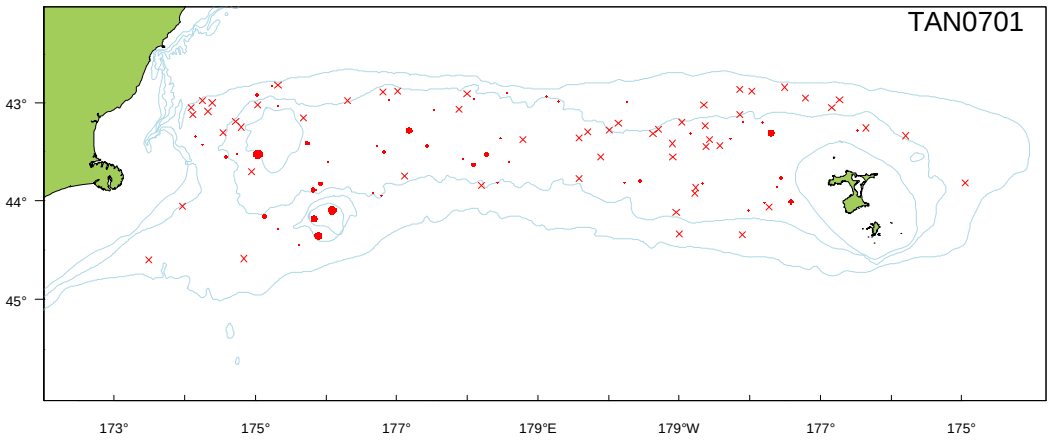
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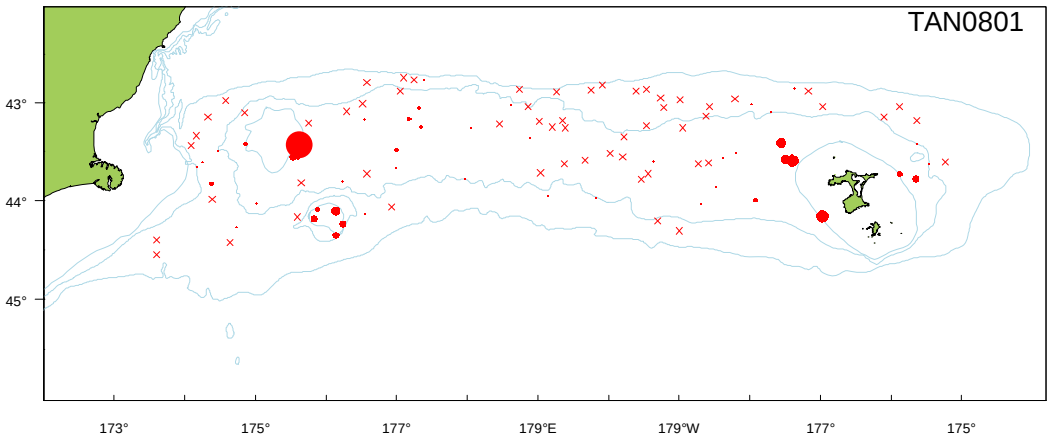
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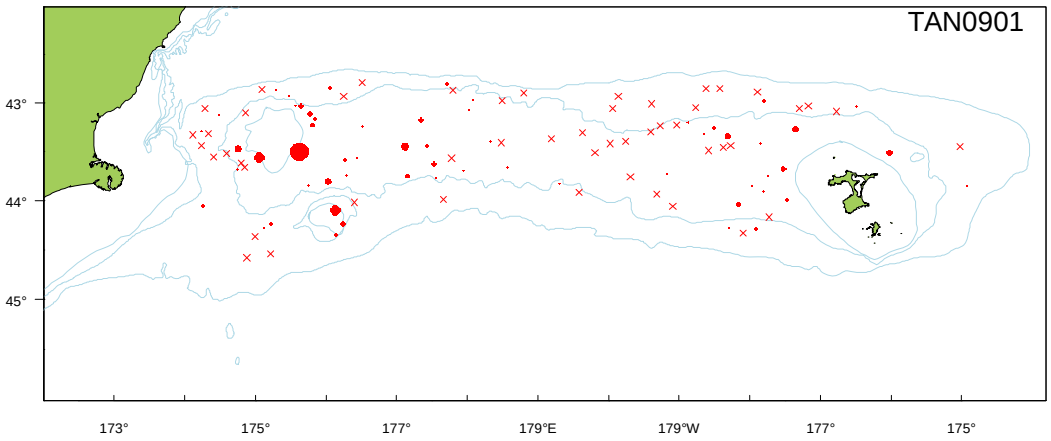
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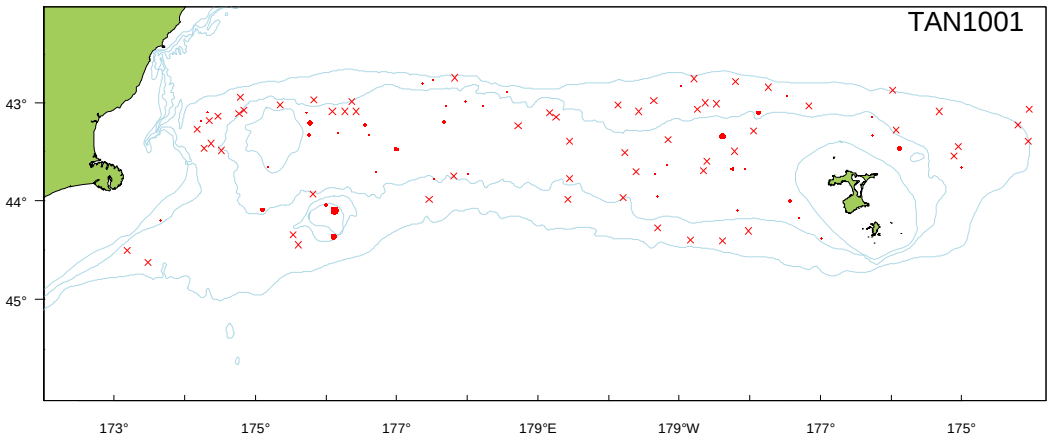
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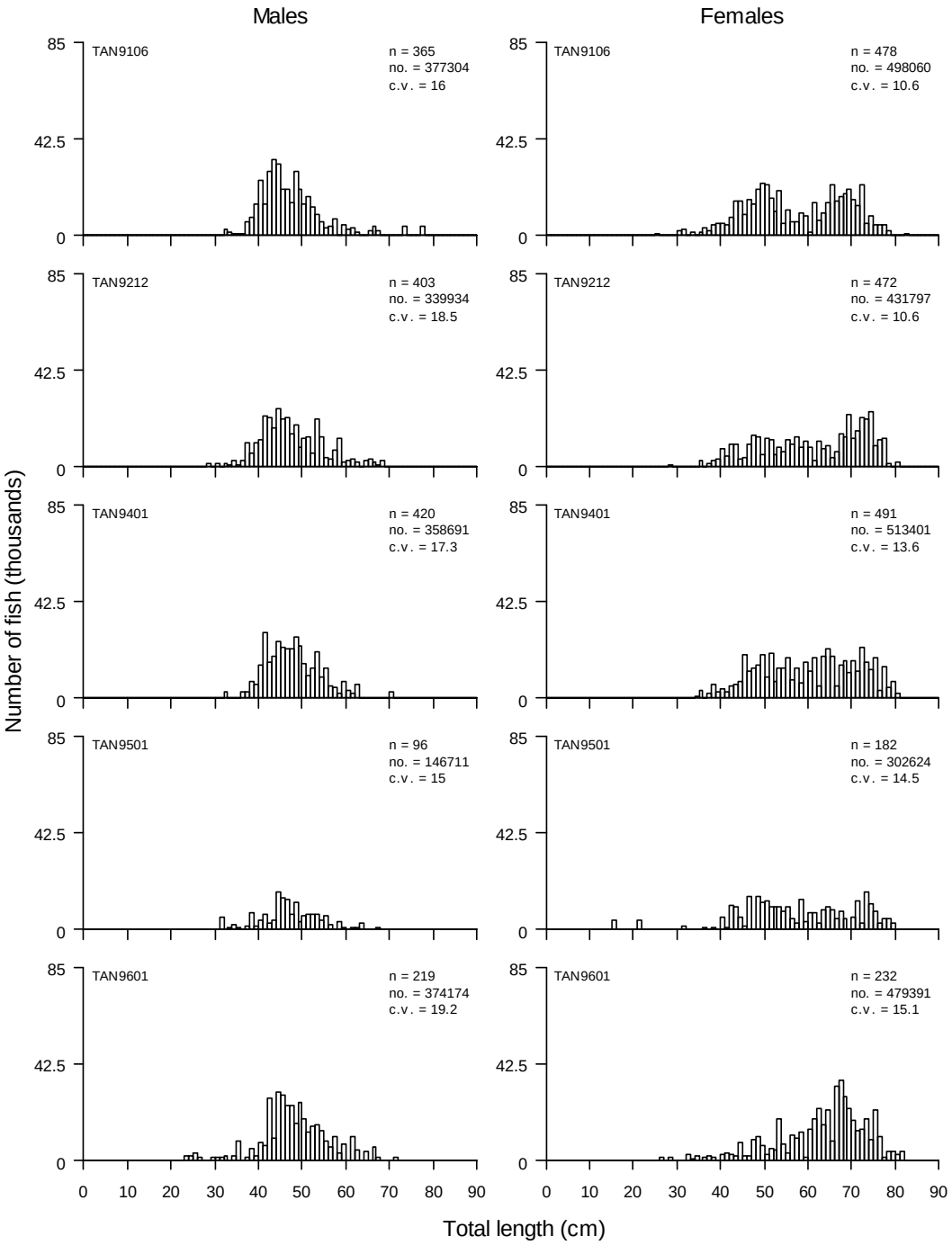
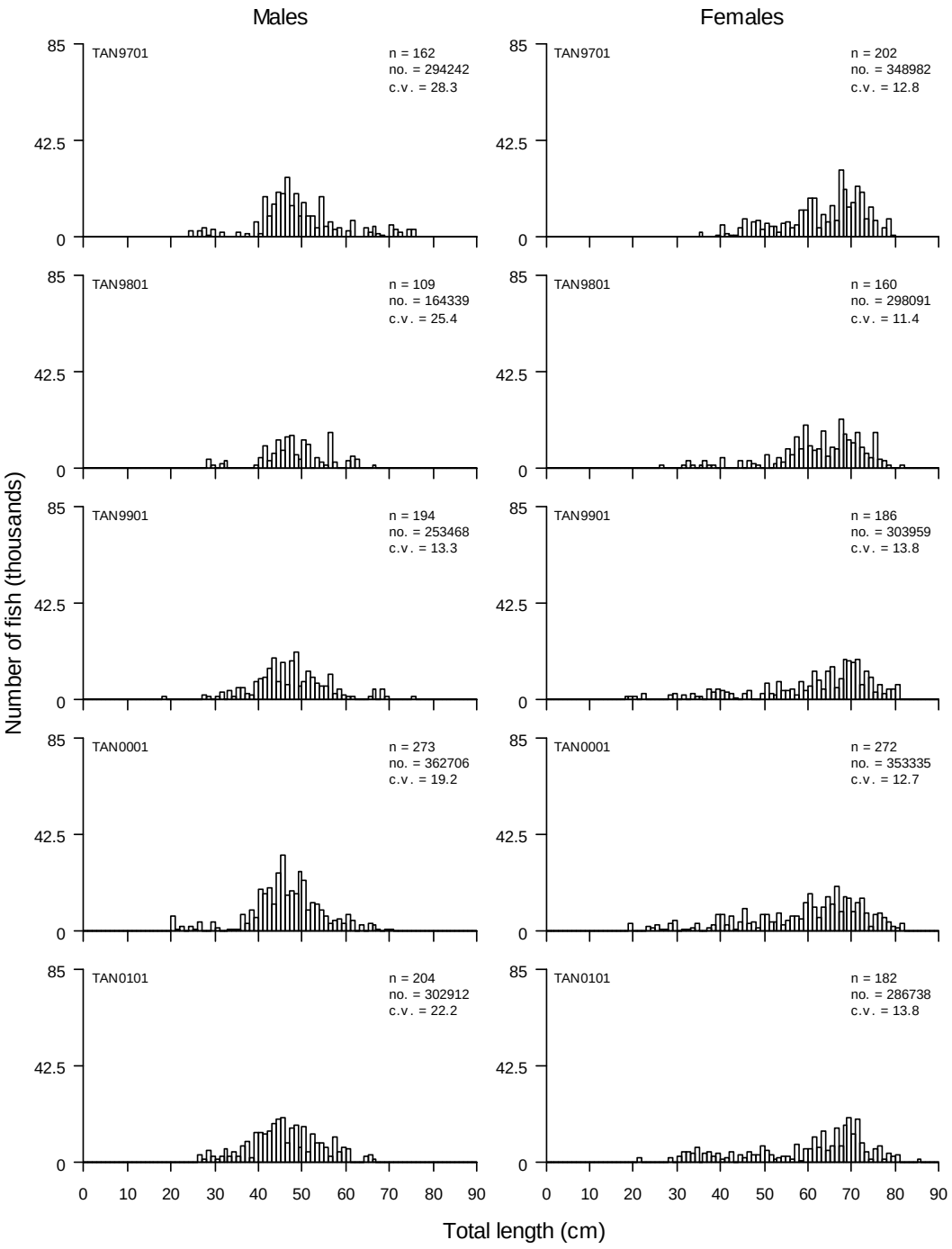
Length Frequencies

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Females
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c.v. = 12.8
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n = 109
no. = 164339
c.v. = 25.4
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n = 160
no. = 298091
c.v. = 11.4
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n = 194
no. = 253468
c.v. = 13.3
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n = 186
no. = 303959
c.v. = 13.8
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n = 273
no. = 362706
c.v. = 19.2
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n = 272
no. = 353335
c.v. = 12.7
TAN0101
n = 204
no. = 302912
c.v. = 22.2
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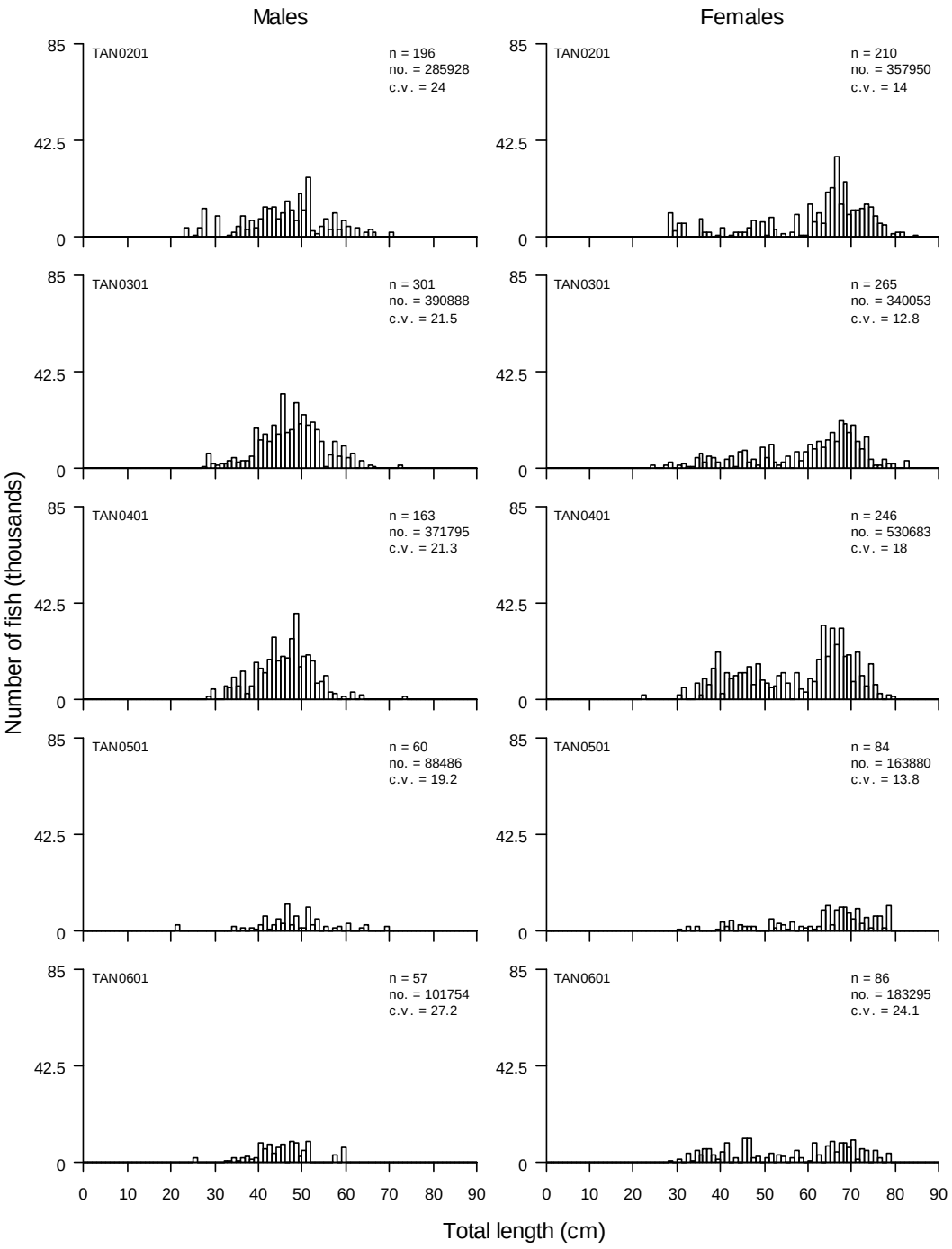
85
0 10 20 30 40 50 60 70 80 90
Total length (cm)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Females
Number of fish (thousands)
Total length (cm)
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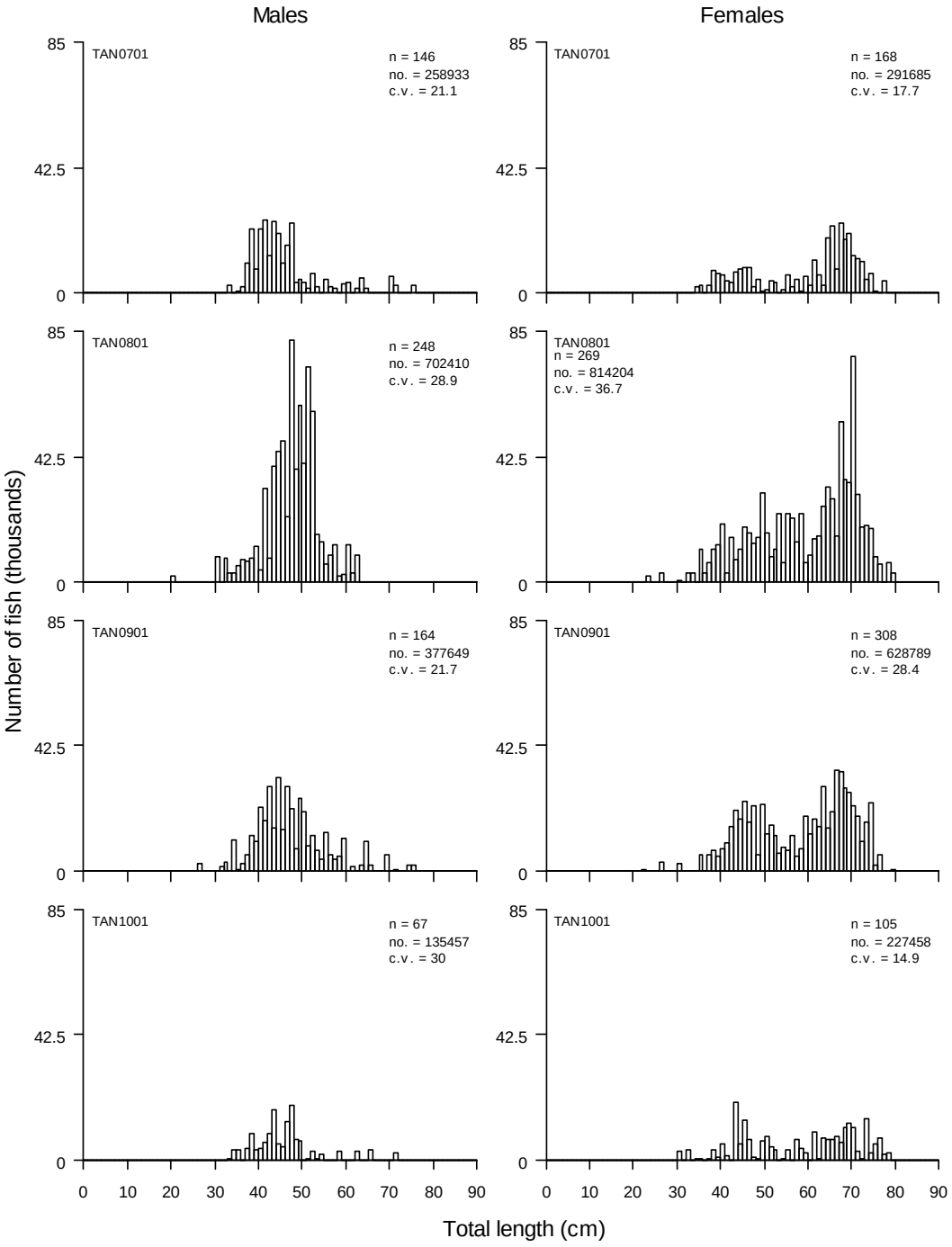
42.5
85
0 10 20 30 40 50 60 70 80 90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Females
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c.v. = 36.7
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n = 308
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c.v. = 28.4
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n = 67
no. = 135457
c.v. = 30
TAN1001
n = 105
no. = 227458
c.v. = 14.9
Number of fish (thousands)
0
42.5
85
0 10 20 30 40 50 60 70 80 90
Total length (cm)

Gonad Stage Information

Males

Year	p_M1	p_M2	p_M3	p_M4	p_M5	p_M6	p_M7	n_allM
1992	NA	NA	NA	NA	NA	NA	NA	0
1993	0	1	0	0	0	0	0	1
1994	NA	NA	NA	NA	NA	NA	NA	0
1995	NA	NA	NA	NA	NA	NA	NA	0
1996	0.26	0.69	0.01	0	0	0	0.04	137
1997	NA	NA	NA	NA	NA	NA	NA	0
1998	0.19	0.75	0	0	0	0	0.06	32
1999	0.29	0.71	0	0	0	0	0	41
2000	NA	NA	NA	NA	NA	NA	NA	0
2001	0.4	0.6	0	0	0	0	0	5
2002	0	1	0	0	0	0	0	15
2003	NA	NA	NA	NA	NA	NA	NA	0
2004	0	0.9	0.1	0	0	0	0	21
2005	0.06	0.57	0.36	0	0	0	0.02	53
2006	0.04	0.96	0	0	0	0	0	25
2007	0	1	0	0	0	0	0	1
2008	NA	NA	NA	NA	NA	NA	NA	0
2009	0.1	0.85	0	0	0	0	0.05	20
2010	0.43	0.57	0	0	0	0	0	7
ALL	0.18	0.73	0.06	0	0	0	0.03	358

Females

Year	p_F1	p_F2	p_F3	p_F4	p_F5	p_F6	p_F7	n_allF
1992	NA	NA	NA	NA	NA	NA	NA	0
1993	0	0	1	0	0	0	0	1
1994	NA	NA	NA	NA	NA	NA	NA	0
1995	0	1	0	0	0	0	0	2
1996	0.08	0.3	0.2	0.05	0	0.14	0.23	132
1997	0	1	0	0	0	0	0	1
1998	0.1	0.14	0.22	0	0	0.07	0.47	59
1999	0.19	0.48	0.12	0.02	0	0.1	0.1	42
2000	NA	NA	NA	NA	NA	NA	NA	0
2001	0.14	0.43	0.14	0	0	0.14	0.14	7
2002	0.11	0.48	0.33	0.04	0	0	0.04	27
2003	NA	NA	NA	NA	NA	NA	NA	0
2004	0.03	0.66	0.31	0	0	0	0	29
2005	0.03	0.48	0.4	0.06	0	0	0.02	62
2006	0	0.08	0.64	0.28	0	0	0	25
2007	0	0	0	0	0	0	1	1
2008	NA	NA	NA	NA	NA	NA	NA	0
2009	0.03	0.52	0.36	0	0.03	0	0.06	33
2010	0.3	0.3	0.22	0	0	0.04	0.13	23
ALL	0.09	0.36	0.27	0.05	0	0.07	0.16	444

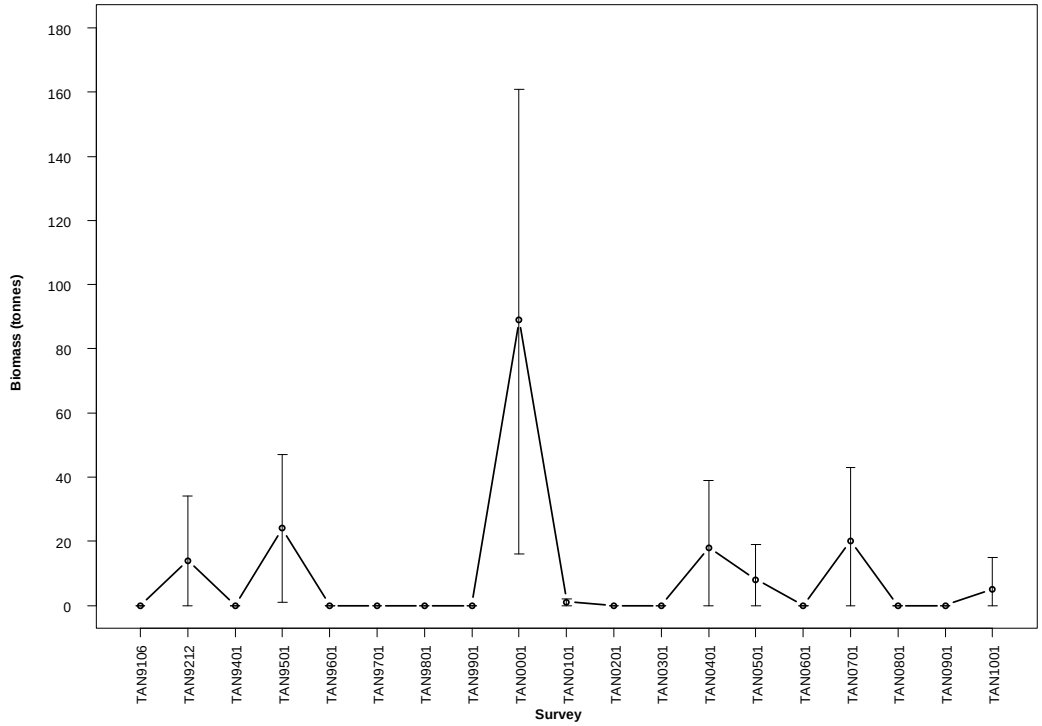
Schedophilus huttoni SUH

Number of surveys caught 1992–2010 (out of 19):	8
Total catch weight (kg):	121.6
Number measured	1
Length range (mean) (cm)	–
Number weighed	1
Length-weight parameters a, b (r^2)	–

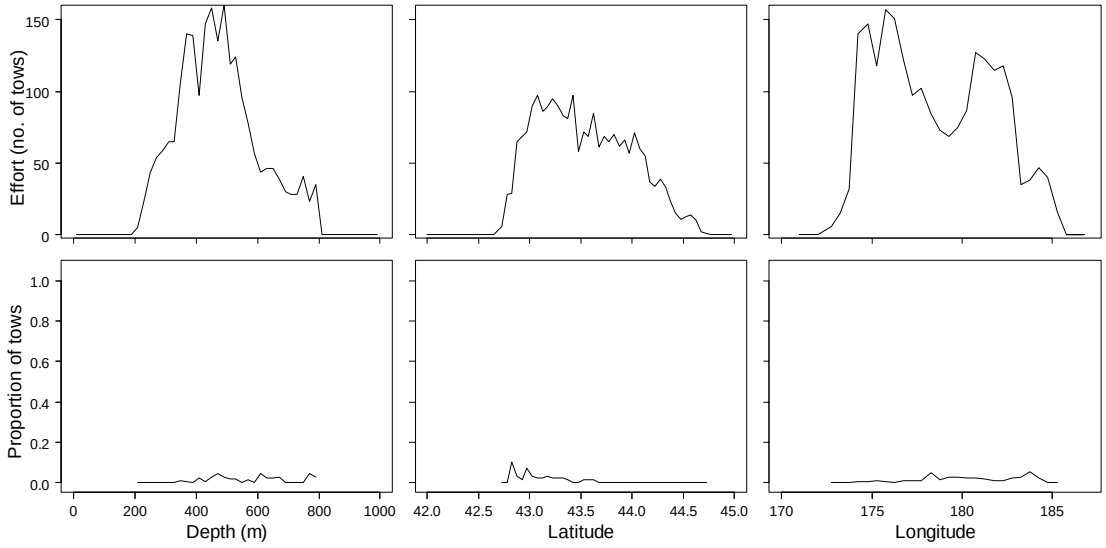
There were **too few fish caught to determine whether the core survey area is appropriate for this species**. Biomass of this species is **poorly** estimated in the core survey area. Biomass **shows no clear trend** since the start of the time series.

Relative biomass estimates

Year	Biomass (t)	cv (%)
1992	0	-
1993	14	74
1994	0	-
1995	24	47
1996	0	-
1997	0	-
1998	0	-
1999	0	-
2000	89	41
2001	1	100
2002	0	-
2003	0	-
2004	18	59
2005	8	71
2006	0	-
2007	20	58
2008	0	-
2009	0	-
2010	5	100



Distribution



Schedophilus sp. SUS

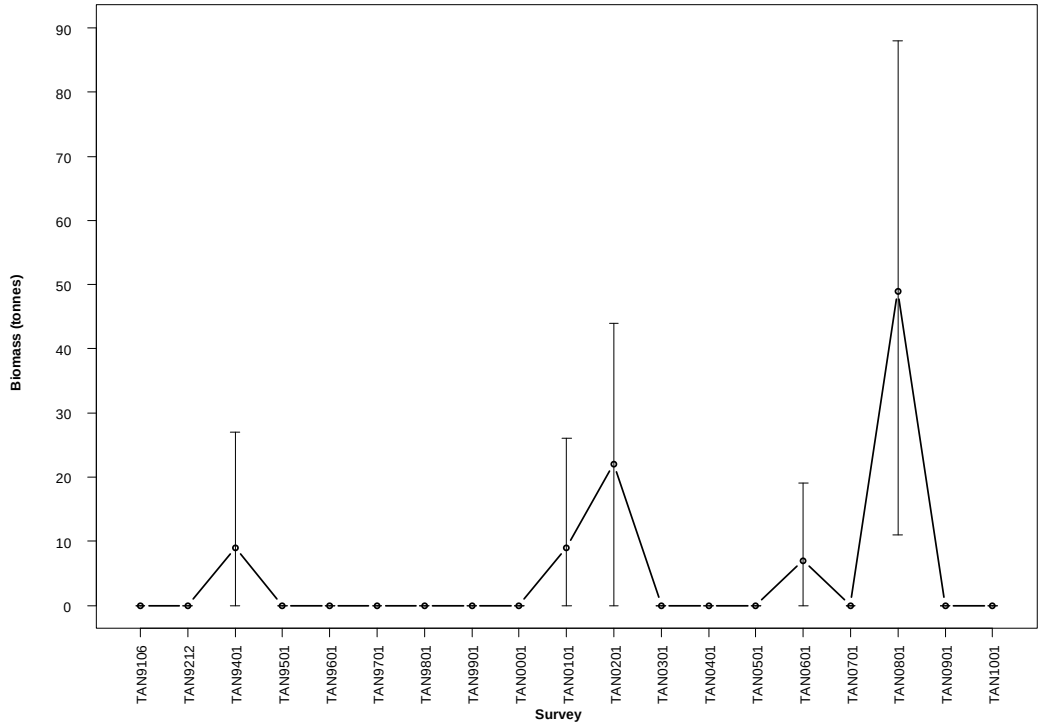
No picture

Number of surveys caught 1992–2010 (out of 19):	5
Total catch weight (kg):	80.8
Number measured	0
Length range (mean) (cm)	–
Number weighed	0
Length-weight parameters a, b (r^2)	–

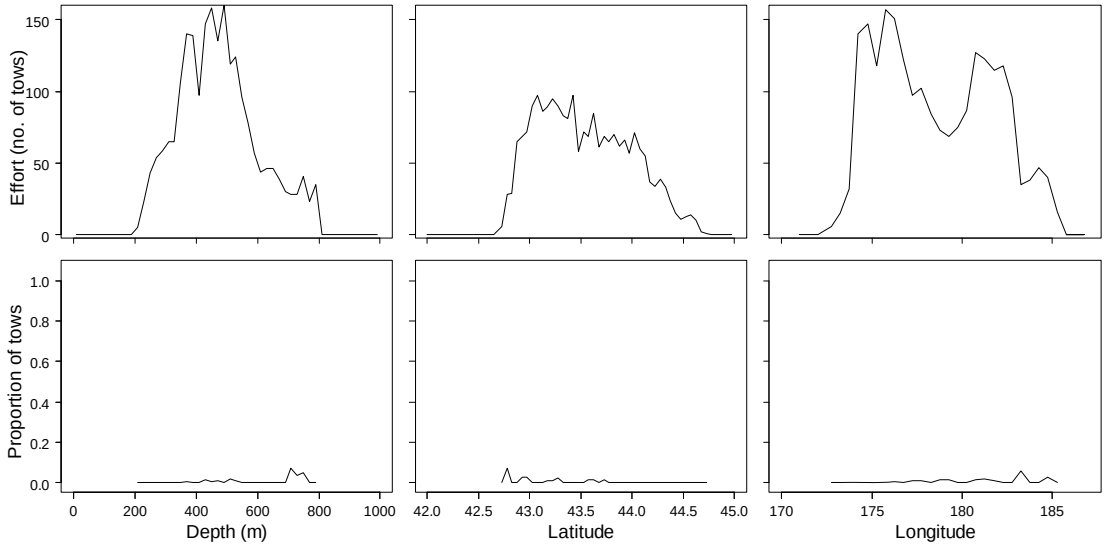
There were **too few fish caught to determine whether the core survey area is appropriate for this species**. Biomass of this species is **poorly** estimated in the core survey area. Biomass **shows no clear trend** since the start of the time series.

Relative biomass estimates

Year	Biomass (t)	cv (%)
1992	0	-
1993	0	-
1994	9	100
1995	0	-
1996	0	-
1997	0	-
1998	0	-
1999	0	-
2000	0	-
2001	9	100
2002	22	50
2003	0	-
2004	0	-
2005	0	-
2006	7	87
2007	0	-
2008	49	39
2009	0	-
2010	0	-



Distribution



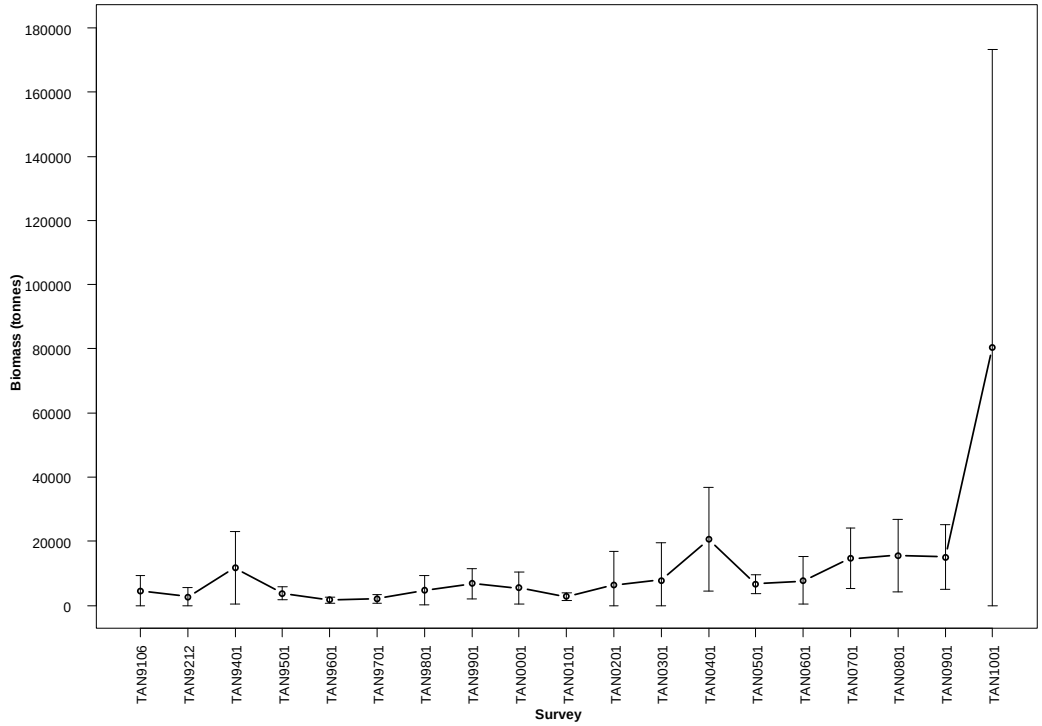
Silver warehou (*Seriolella punctata*) SWA

Number of surveys caught 1992–2010 (out of 19):	19
Total catch weight (kg):	115 932
Number measured	25 889
Length range (mean) (cm, FL)	14–66 (41.8)
Number weighed	7 858
Length-weight parameters a, b (r^2)	0.010074, 3.163939 (98.15)

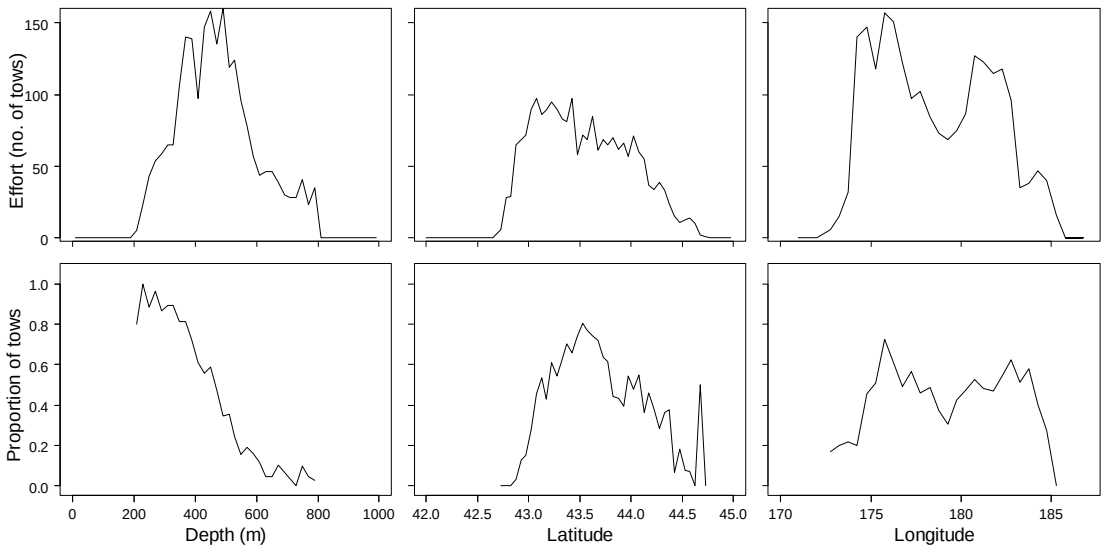
The core survey area and depth range **is** appropriate for this species. Biomass of this species is **poorly** estimated in the core survey area. Biomass has **increased** since the start of the time series. Catch rates are highest in the **west**. Length frequencies **have multiple modes which may contain information about year-class strength**. Mean length **shows no clear trend** since the start of the time series. Gonad stage data indicate that most fish are **resting**.

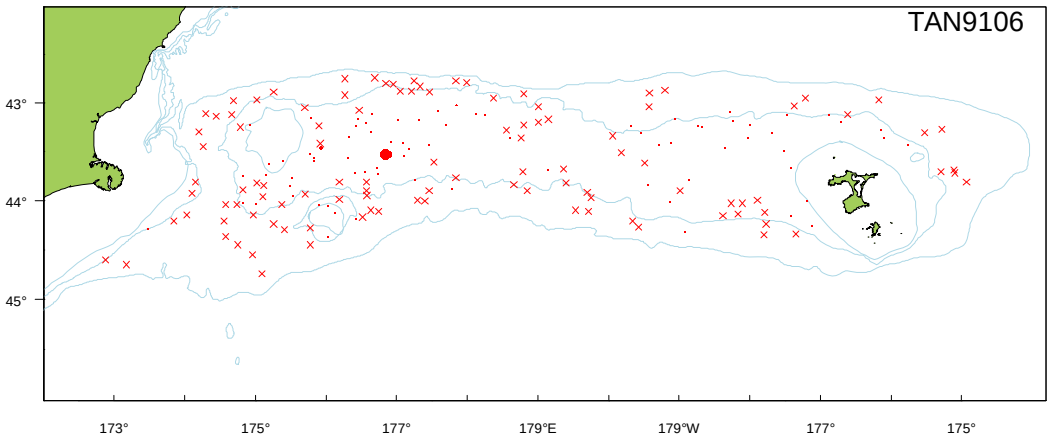
Relative biomass estimates and length summary

			Length (cm)			No.
Year	**Biomass (t)**	**cv (%)**	**Min.**	**Max.**	**Mean**	**measured**
1992	4 489	54	23	57	43.3	1 065
1993	2 694	51	14	66	40.4	1 321
1994	11 640	49	20	61	42.5	2 001
1995	3 737	28	26	56	47.3	909
1996	1 707	28	25	57	41.5	488
1997	2 101	32	26	57	47.2	525
1998	4 708	48	24	56	44.5	796
1999	6 760	34	22	56	45.2	1 491
2000	5 425	46	16	59	42.3	1 559
2001	2 728	22	23	57	36.8	1 317
2002	6 410	81	19	55	39.1	561
2003	7 815	74	23	58	37.1	722
2004	20 548	40	21	58	45.1	1 598
2005	6 671	22	20	58	37.7	1 635
2006	7 704	48	20	57	37.5	1 111
2007	14 646	32	23	55	42.0	1 619
2008	15 546	36	24	54	40.0	1 843
2009	15 061	34	23	55	40.3	1 828
2010	80 469	58	30	56	44.1	2 509



Distribution

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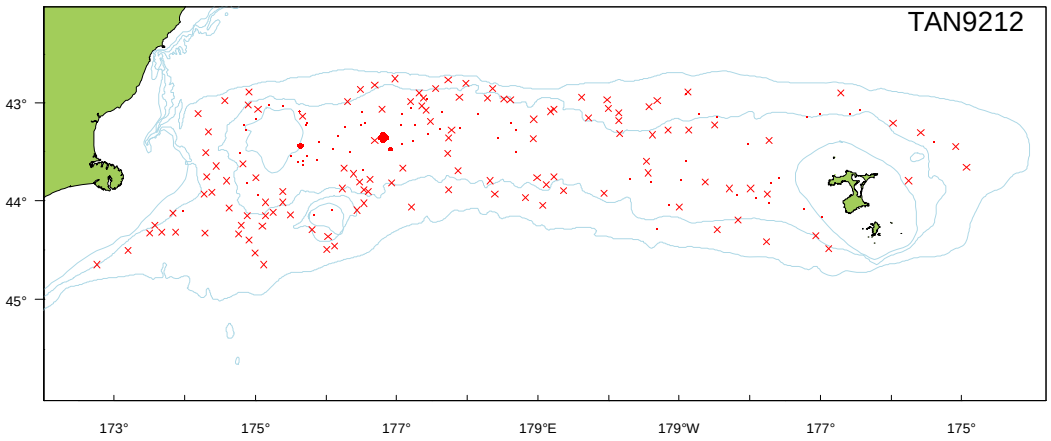
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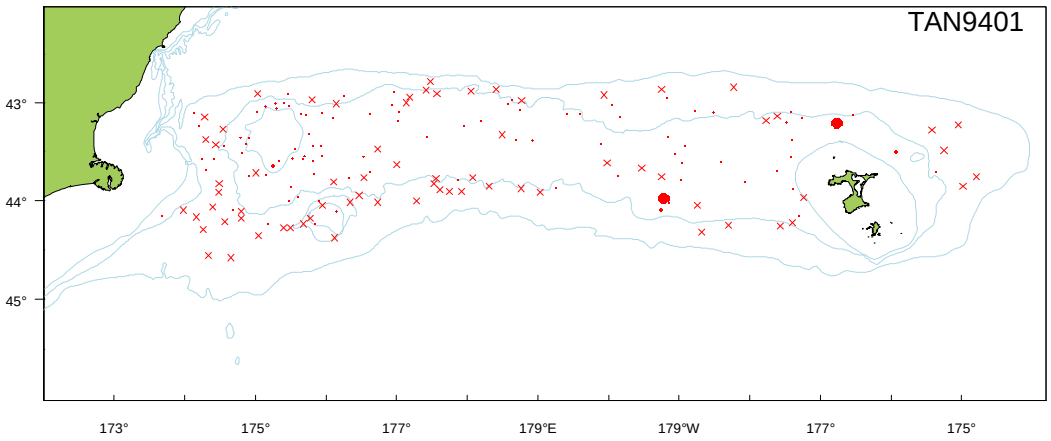
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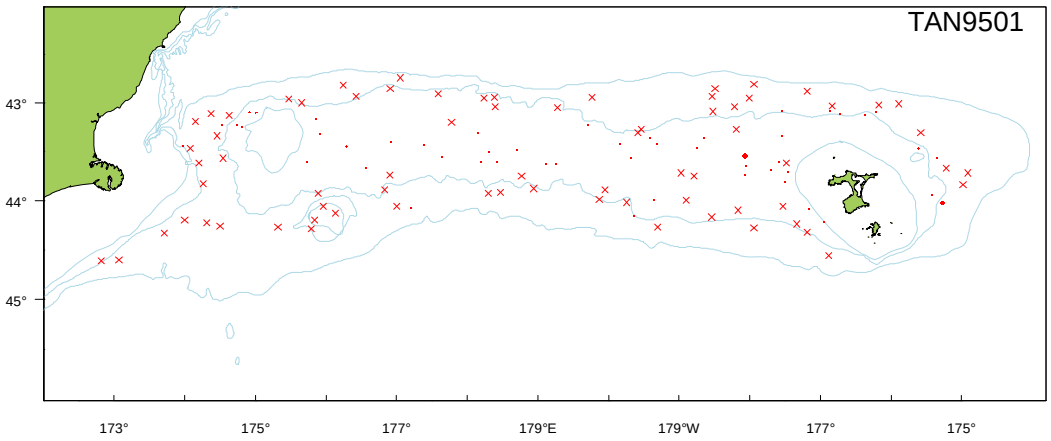
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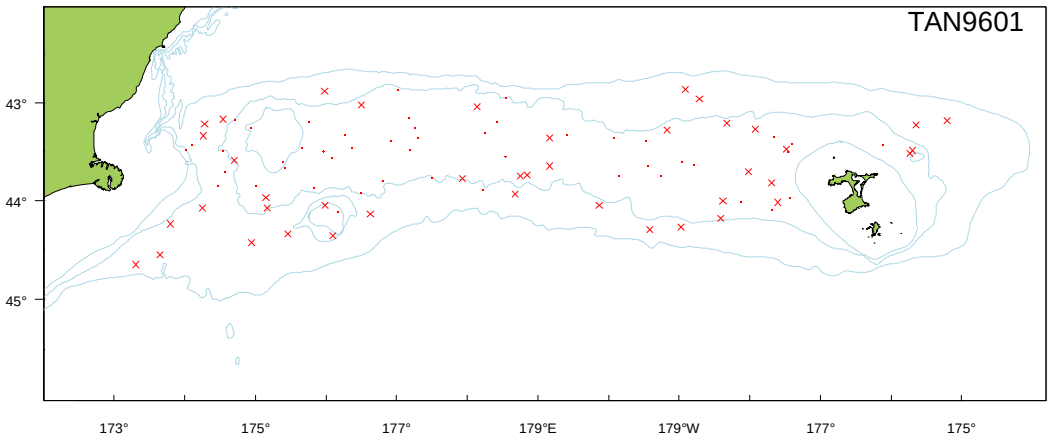
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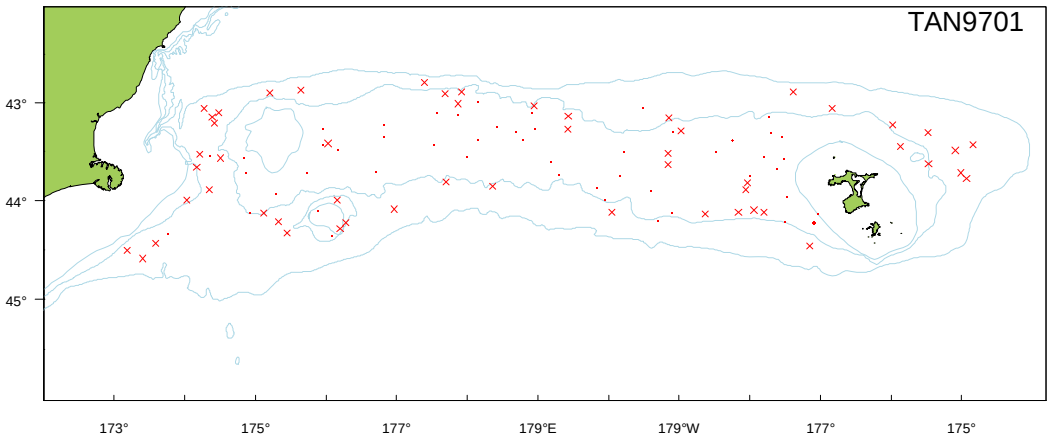
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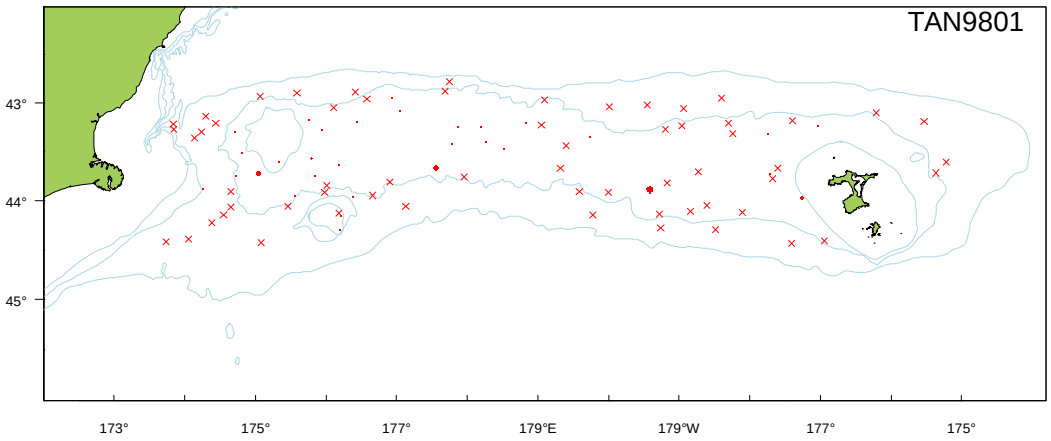
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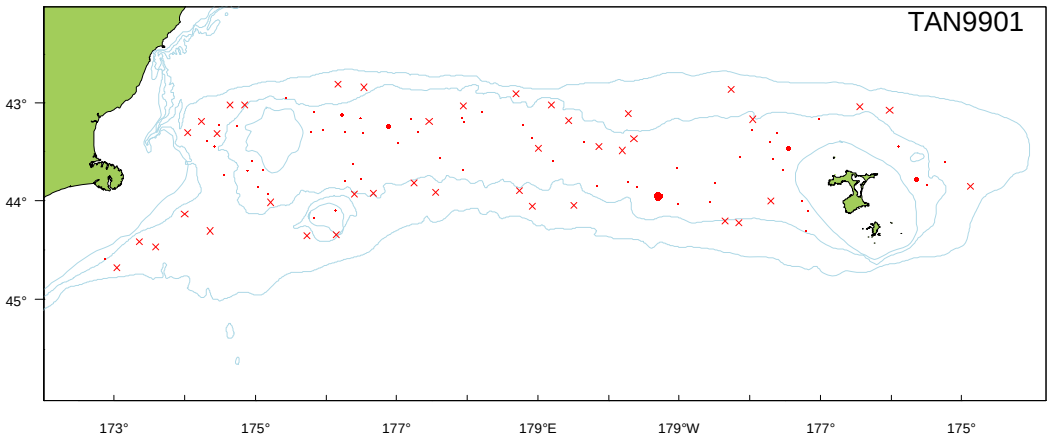
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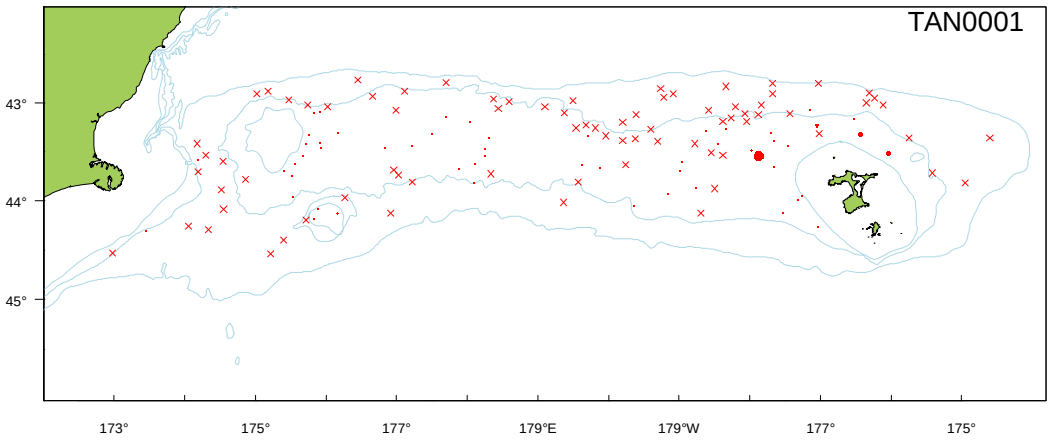
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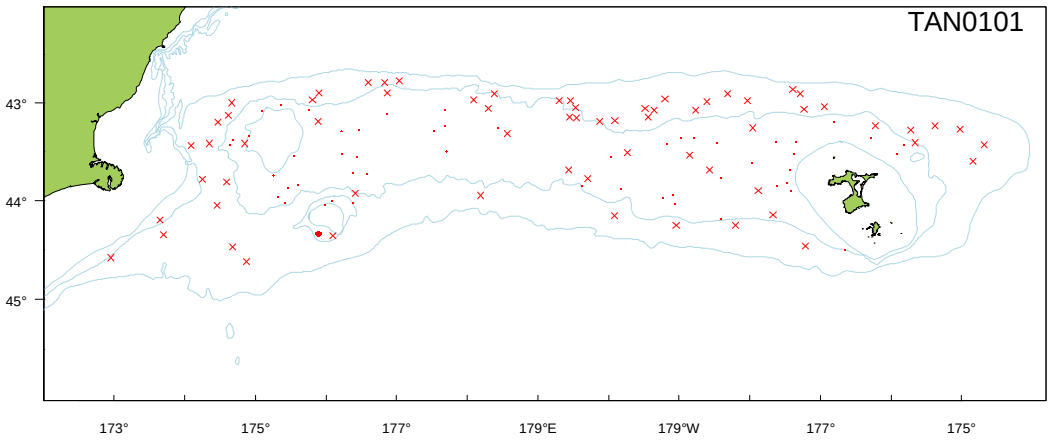
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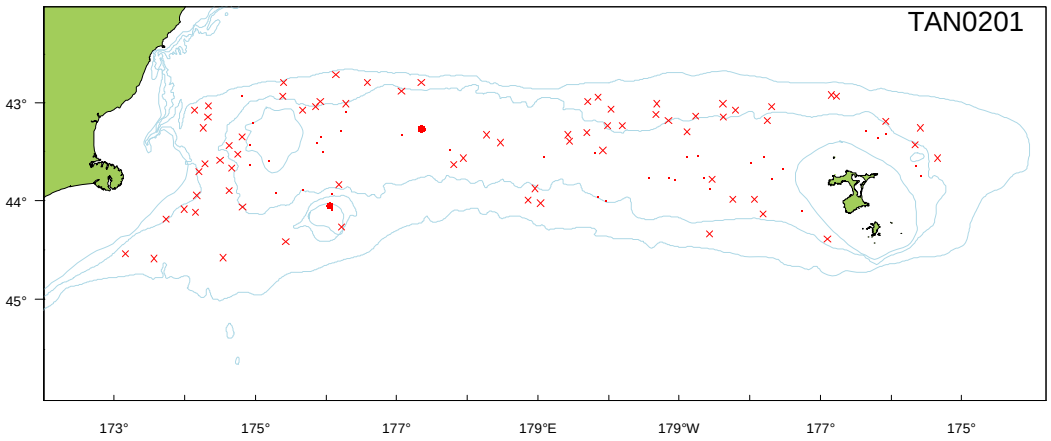
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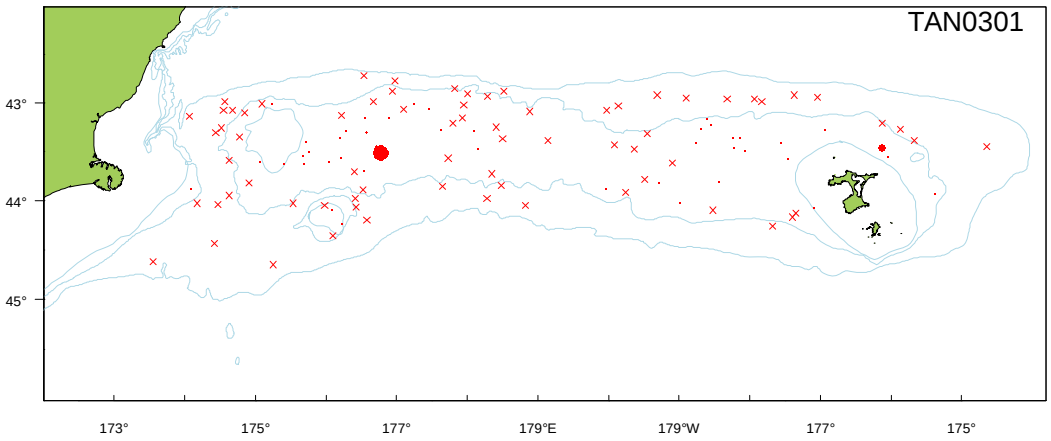
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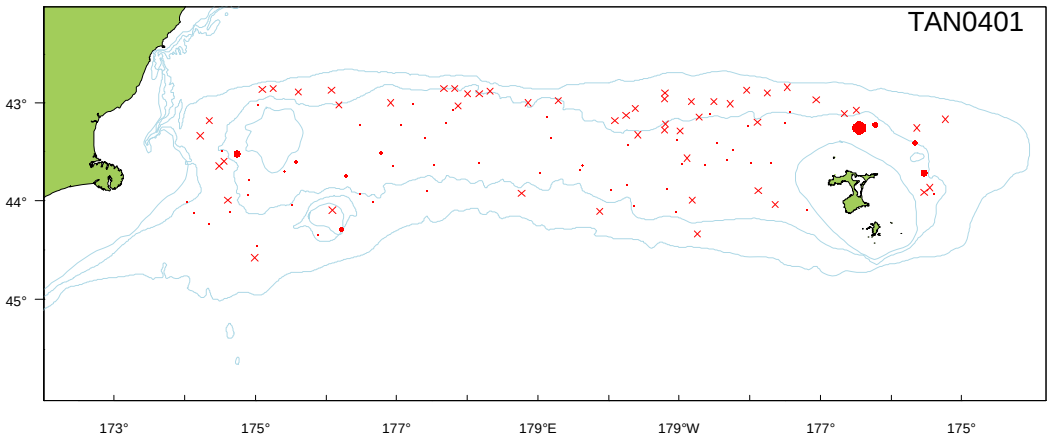
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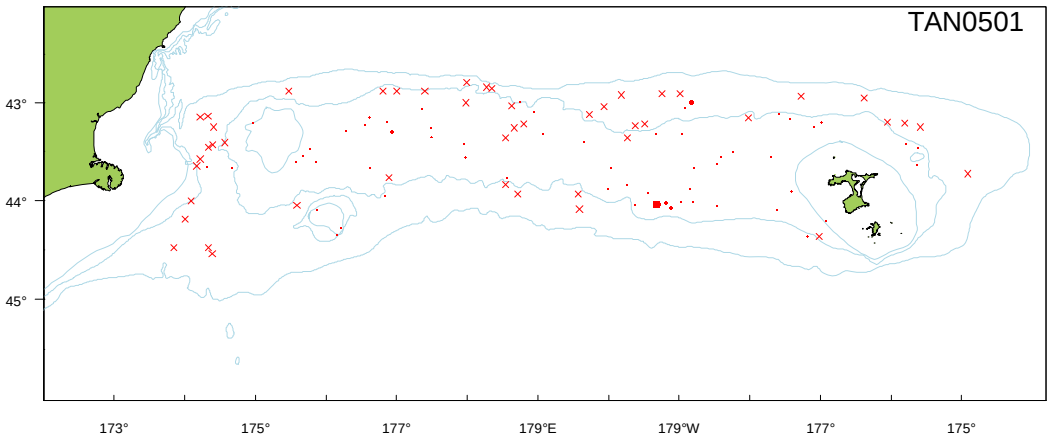
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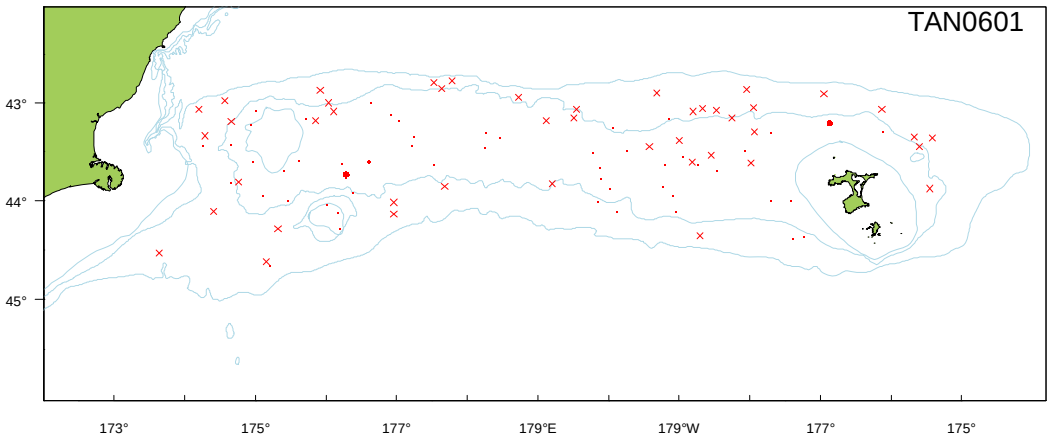
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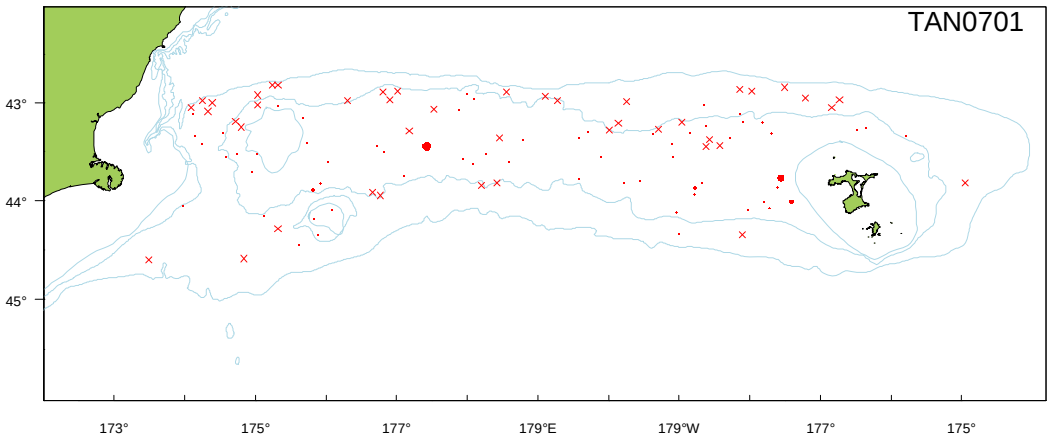
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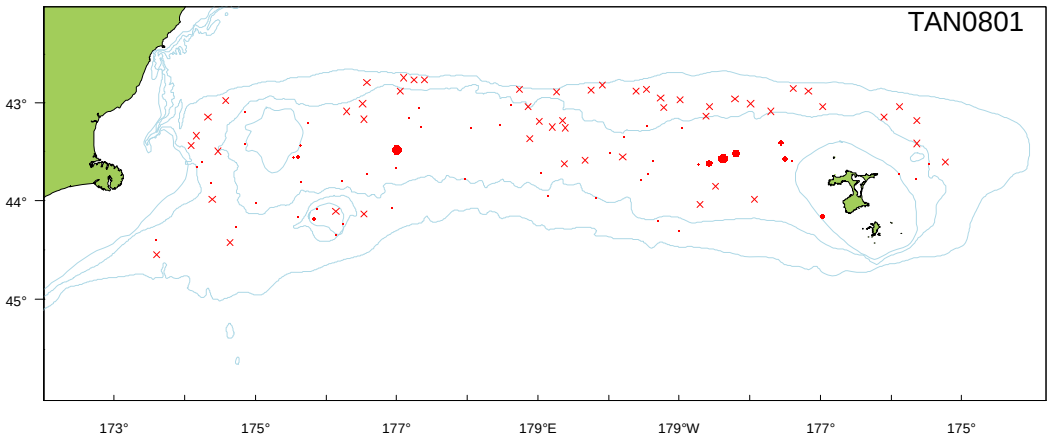
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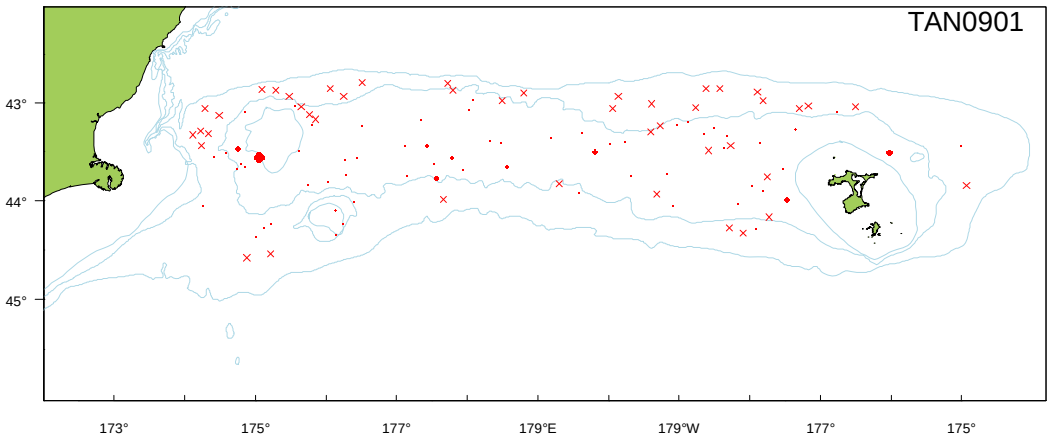
TAN0901
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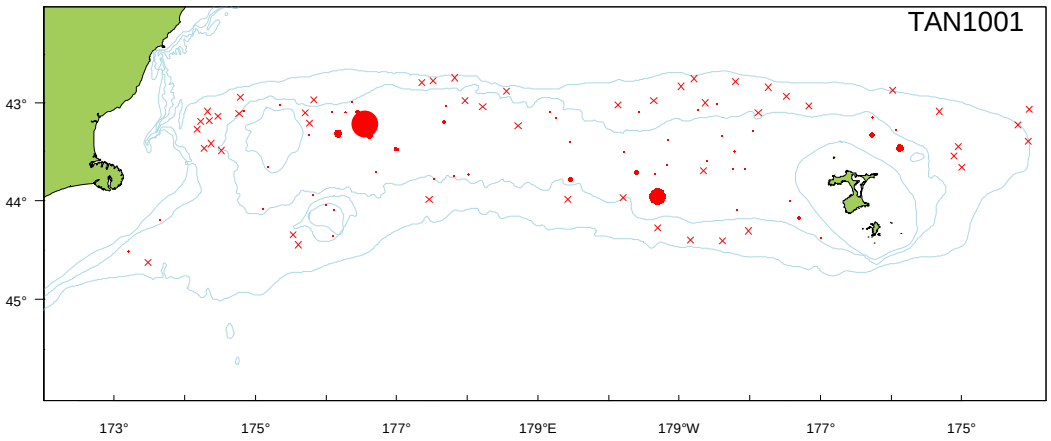
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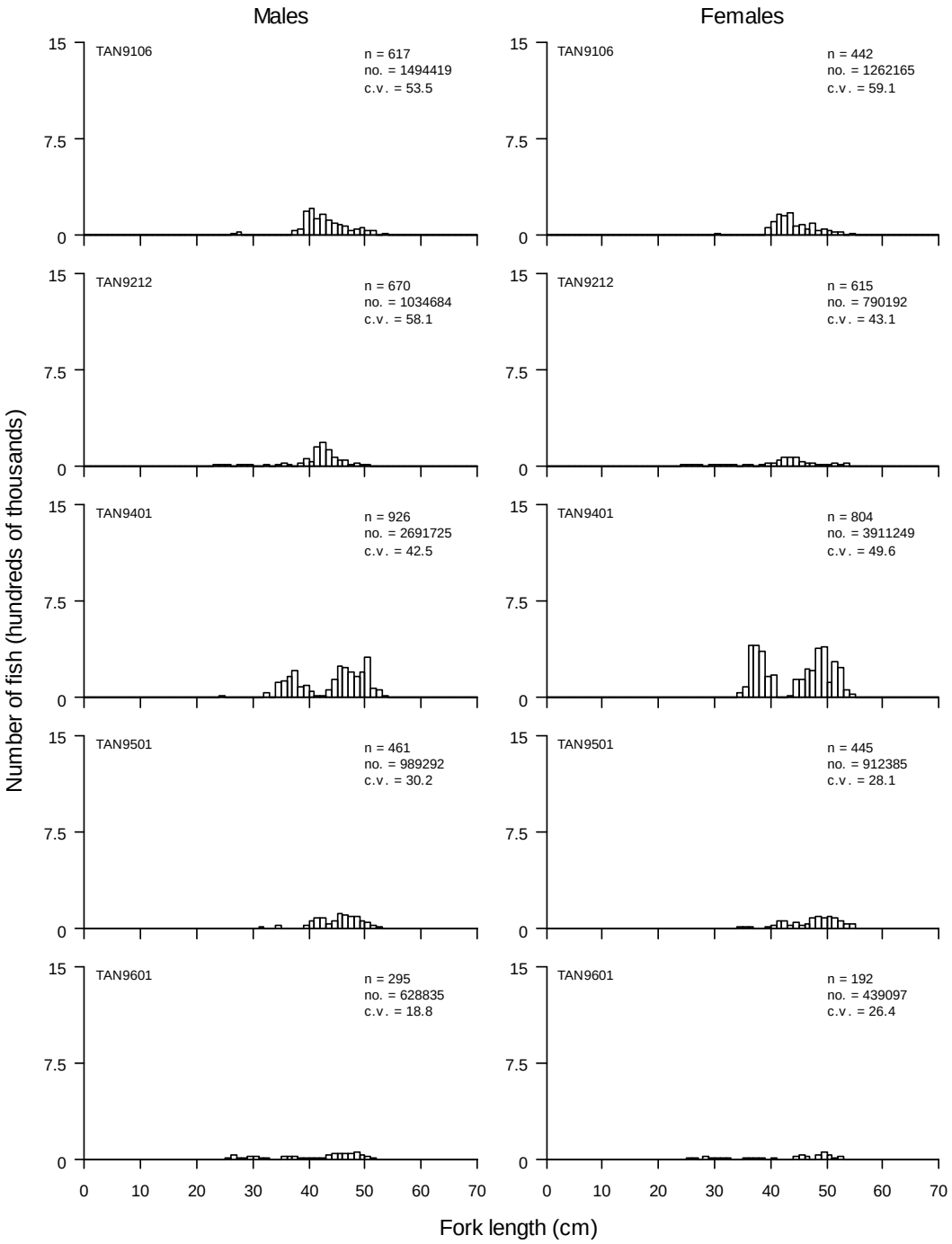
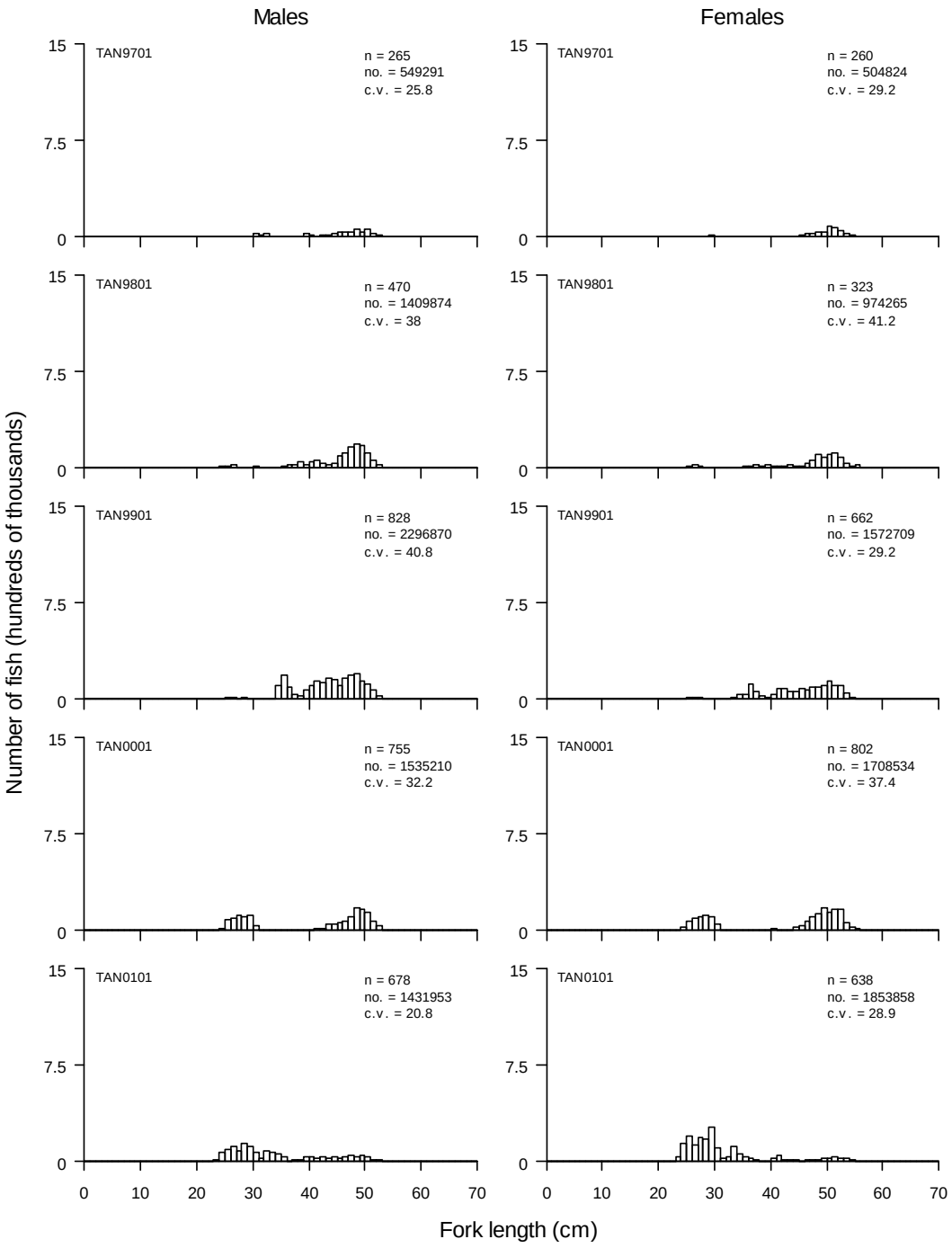
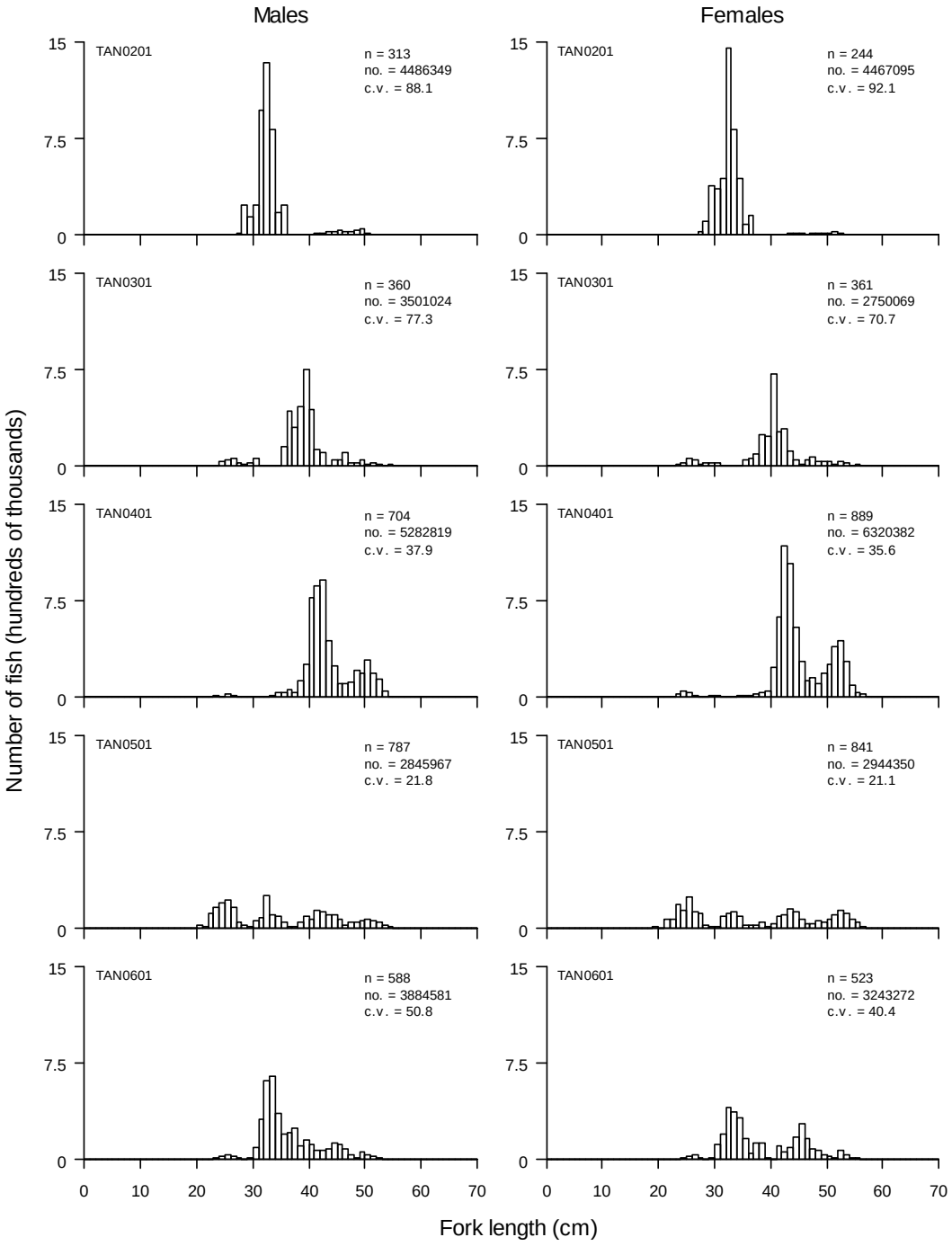
Length Frequencies




Males
Females
TAN9701
n = 265
no. = 549291
c.v. = 25.8
TAN9701
n = 260
no. = 504824
c.v. = 29.2
TAN9801
n = 470
no. = 1409874
c.v. = 38
TAN9801
n = 323
no. = 974265
c.v. = 41.2
TAN9901
n = 828
no. = 2296870
c.v. = 40.8
TAN9901
n = 662
no. = 1572709
c.v. = 29.2
TAN0001
n = 755
no. = 1535210
c.v. = 32.2
TAN0001
n = 802
no. = 1708534
c.v. = 37.4
TAN0101
n = 678
no. = 1431953
c.v. = 20.8
TAN0101
n = 638
no. = 1853858
c.v. = 28.9
Number of fish (hundreds of thousands)
Fork length (cm)


Males
Females
TAN0201
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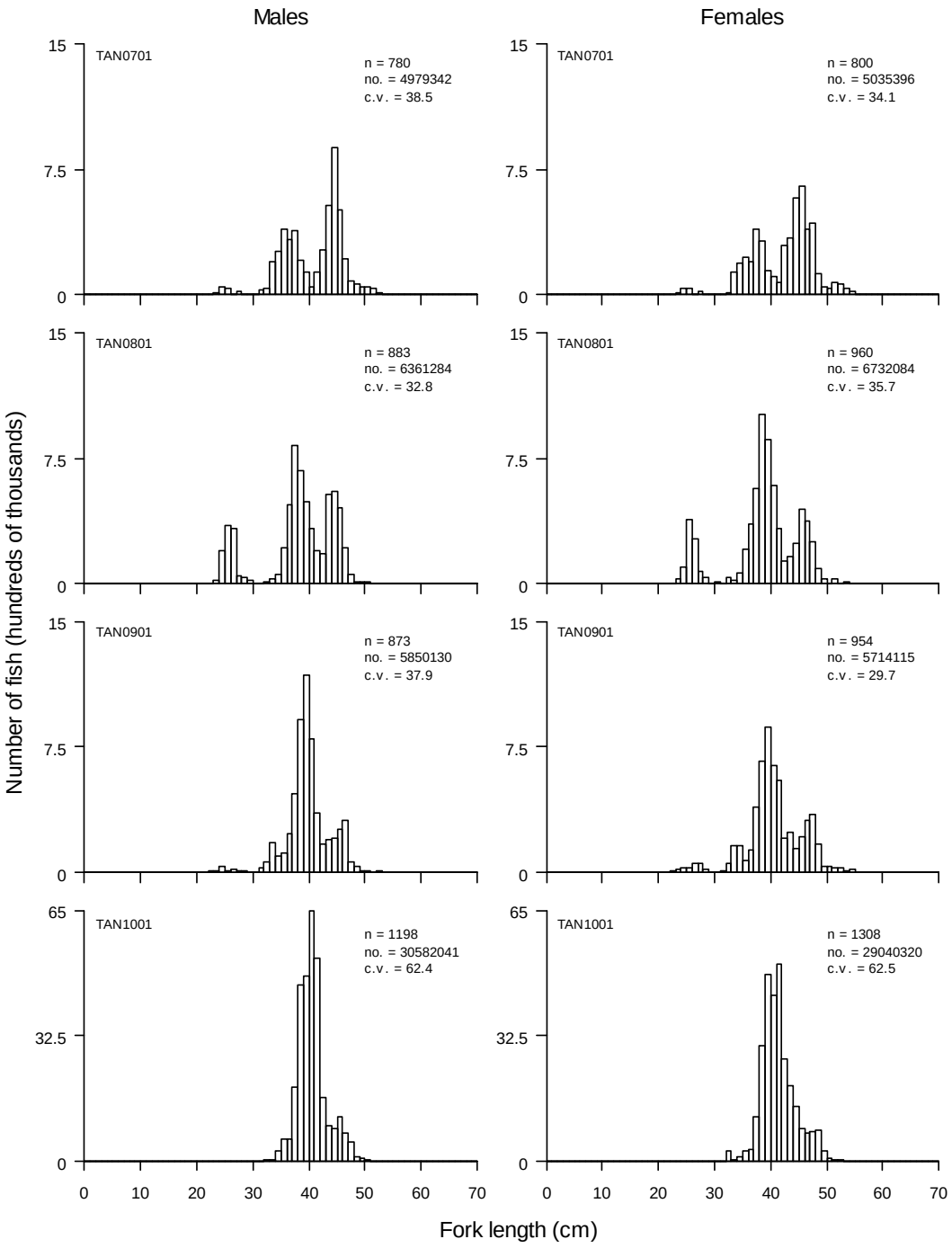
no. = 4486349
c.v. = 88.1
TAN0201
n = 244
no. = 4467095
c.v. = 92.1
TAN0301
n = 360
no. = 3501024
c.v. = 77.3
TAN0301
n = 361
no. = 2750069
c.v. = 70.7
TAN0401
n = 704
no. = 5282819
c.v. = 37.9
TAN0401
n = 889
no. = 6320382
c.v. = 35.6
TAN0501
n = 787
no. = 2845967
c.v. = 21.8
TAN0501
n = 841
no. = 2944350
c.v. = 21.1
TAN0601
n = 588
no. = 3884581
c.v. = 50.8
TAN0601
n = 523
no. = 3243272
c.v. = 40.4
Number of fish (hundreds of thousands)
Fork length (cm)
0
7.5
15
0
10
20
30
40
50
60
70


Males
Females
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n = 780
no. = 4979342
c.v. = 38.5
TAN0701
n = 800
no. = 5035396
c.v. = 34.1
TAN0801
n = 883
no. = 6361284
c.v. = 32.8
TAN0801
n = 960
no. = 6732084
c.v. = 35.7
TAN0901
n = 873
no. = 5850130
c.v. = 37.9
TAN0901
n = 954
no. = 5714115
c.v. = 29.7
TAN1001
n = 1198
no. = 30582041
c.v. = 62.4
TAN1001
n = 1308
no. = 29040320
c.v. = 62.5
Number of fish (hundreds of thousands)
Fork length (cm)

Gonad Stage Information

Males

Year	p_M1	p_M2	p_M3	p_M4	p_M5	p_M6	p_M7	n_allM
1992	NA	NA	NA	NA	NA	NA	NA	0
1993	0.22	0.38	0.06	0.03	0.01	0.03	0.26	87
1994	0.26	0.51	0.04	0	0	0	0.19	69
1995	0.06	0.8	0.03	0	0	0.12	0	104
1996	0.15	0.77	0.01	0.01	0	0.01	0.06	121
1997	0	0.91	0	0	0.01	0	0.07	70
1998	0.2	0.45	0	0	0.01	0	0.34	163
1999	0.07	0.92	0	0	0	0	0.01	86
2000	NA	NA	NA	NA	NA	NA	NA	0
2001	0.04	0.9	0	0	0	0	0.06	69
2002	1	0	0	0	0	0	0	2
2003	NA	NA	NA	NA	NA	NA	NA	0
2004	NA	NA	NA	NA	NA	NA	NA	0
2005	0.44	0.45	0.1	0	0	0	0.01	126
2006	0.25	0.62	0	0	0	0	0.12	8
2007	NA	NA	NA	NA	NA	NA	NA	0
2008	NA	NA	NA	NA	NA	NA	NA	0
2009	0.04	0.96	0	0	0	0	0	47
2010	0.01	0.97	0	0	0	0	0.02	312
ALL	0.13	0.74	0.02	0	0	0.01	0.09	1 264

Females

Year	p_F1	p_F2	p_F3	p_F4	p_F5	p_F6	p_F7	n_allF
1992	NA	NA	NA	NA	NA	NA	NA	0
1993	0.18	0.46	0.01	0	0	0	0.34	82
1994	0.1	0.46	0.06	0	0	0	0.39	90
1995	0.01	0.96	0.02	0	0	0	0.01	95
1996	0.1	0.88	0.02	0	0	0	0	91
1997	0	0.85	0.04	0	0	0.05	0.05	74
1998	0.29	0.39	0.03	0	0	0	0.29	114
1999	0.03	0.83	0	0	0	0	0.13	89
2000	NA	NA	NA	NA	NA	NA	NA	0
2001	0.05	0.95	0	0	0	0	0	40
2002	0	1	0	0	0	0	0	2
2003	NA	NA	NA	NA	NA	NA	NA	0
2004	NA	NA	NA	NA	NA	NA	NA	0
2005	0.36	0.55	0.06	0.01	0	0	0.02	125
2006	0	0.71	0.29	0	0	0	0	7
2007	NA	NA	NA	NA	NA	NA	NA	0
2008	NA	NA	NA	NA	NA	NA	NA	0
2009	0	0.97	0.03	0	0	0	0	62
2010	0.01	0.97	0	0	0	0	0.01	471
ALL	0.09	0.79	0.02	0	0	0	0.09	1 342